The CANADA ROUND

Paul Boothe, John F. Chant,
Daniel Desjardins,
Claude Gendron, Irene K. Ip,
Barbara Johnston,
Karrin Powys-Lybbe,
William B.P. Robson, Yvan Stringer

A Series on the Economics of the Breakup of Confederation

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C.D. Howe Institute
125 Adelaide Street East
Toronto, Ontario
M5C 1L7
(tel.: 416-865-1904; fax: 416-865-1866)

Closing the Books

Dividing Federal Assets and Debt If Canada Breaks Up

Paul Boothe, John F. Chant, Daniel Desjardins, Claude Gendron, Irene K. Ip, Barbara Johnston, Karrin Powys-Lybbe, William B.P. Robson, Yvan Stringer

The Canada Round:
A Series on the Economics of
the Breakup of Confederation — No. 8

John McCallum, Series Editor

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Foreword

Canada appears poised to embark on an historic political reconfiguration. It is essential that this process be undertaken with a clear and widely diffused understanding of the well-spring of Canadians' economic prosperity.

It is with that in mind that the C.D. Howe Institute presents this series of monographs entitled *The Canada Round*. The series assembles the work of many of Canada's leading economic and political analysts. The monographs are organized into two groups. The first group, called "The Economics of Constitutional Renewal", rests on the assumption of renewed federalism and is organized around economic themes. It examines the economic goals that Canadians have set for themselves, as well as the means of achieving them and the influence of alternative constitutional structures.

The second group of studies, called "The Economics of the Breakup of Confederation", examines the economic consequences of Quebec independence for both Quebec and the rest of Canada. A unique feature of the "Breakup" studies is that they are integrated with the research that has already been carried out by Quebec's Bélanger-Campeau Commission. Where appropriate, each of the studies in this group includes a summary of the relevant analysis by the Bélanger-Campeau Commission, contributions by experts from across Canada, as well as shorter critiques or replies. This format, we believe, will help to pierce Canada's "several solitudes" and create a pan-Canadian meeting of minds.

The Canada Round is not intended to alarm or frighten — the process of collective political definition in this country will turn on more than simply questions of dollars and cents. And, as these monographs will reveal, economics rarely produces an open-and-shut case as to the superiority of one possible set of rules over another. Even if it could do this, it would be unwise to assume that

economic analysis alone could change the minds of those who are already committed to a particular vision of the political future.

It is equally clear, however, that Canadians are now seeking a greater understanding of the links between the economy, the Constitution, and legal and political life. A significant reform of the Constitution will influence the economy, in some cases for the better; a rending of the Constitution under conditions of acrimony will almost certainly damage it. Thus, the purpose of the series is to help Canadians think constructively about the benefits and costs of alternative constitutional designs.

Underlying the series is a focus on the economic well-being of Canadians, now and in the future. To best insure this well-being over the short run, Canada needs calm, open negotiations in which efforts are made to understand and incorporate the aspirations of all the participants. This series of monographs is dedicated to that effort.

John McCallum, the series editor and Chairman of the Department of Economics at McGill University, organized the intellectual input. Within the C.D. Howe Institute, David Brown, Senior Policy Analyst, played a coordinating role. This eighth monograph in the series was copy edited by Lenore d'Anjou, Barry A. Norris, and Darlene Zeleney, and desktop published by Brenda Palmer. As with all C.D. Howe Institute publications, the analysis and views presented here are the responsibility of the authors and do not necessarily reflect the opinions of the Institute's members or Board of Directors.

Thomas E. Kierans
President and
Chief Executive Officer

The Study in Brief

Another influence of the [Bélanger-Campeau] Commission has been to encourage some rather unrealistic expectations about the ability to make cool-headed calculations in the midst of the hot-blooded battle that would surround the process of liquidating the federal government.

— Irene Ip and William Robson

This eighth study in "The Canada Round" series is primarily an exercise in "cool-headed calculations" on a subject that could turn out to be immensely contentious and emotional. Specifically, in the event of Quebec separation or even a total dissolution of Canada, how should federal assets and debt be divided? Whatever the amount of the debt that Quebec were to assume, how would the transfer of that debt be carried out?

Daniel Desjardins and Claude Gendron on Legal Issues

Daniel Desjardins and Claude Gendron ask whether international law provides guidance on these questions. Although their richly documented study is carefully nuanced, their findings can be summarized with the statement that international law provides only a few authoritative answers. On the one hand, the authors argue, Quebec would have no direct legal liability toward the current holders of federal debt, since international law would not transfer automatically to an independent Quebec any obligation toward Canada's creditors. Moreover, international law regarding state succession would provide that an independent Quebec would automatically acquire *all* assets on its territory. On the other hand, Desjardins and Gendron argue, the tendency of modern international law, although not well settled on the subject, together with political and economic realities, would probably oblige Quebec to assume an

"equitable" share of the federal debt. Their analysis is predicated on the assumption that Quebec sovereignty would have been achieved and recognized in conformity with international law.

Paul Boothe, Barbara Johnston, and Karrin Powys-Lybbe on Sharing the Debt

In round numbers and depending on the formula used, a sovereign Quebec's share could be as low as one-sixth or as high as one-third of the gross federal debt. This can be seen from the following figures (based on a total federal debt of $400.6 billion as of March 31, 1990):

Formula Used	*Quebec's Share (% of total)*
Bélanger-Campeau Secretariat approach	$66.3 billion (16.6%)
Share based on gross domestic product (GDP)	$92.8 billion (23.2%)
Share based on population	$101.9 billion (25.4%)
Historical benefits approach	$128.3 billion (32.0%)

The background paper on dividing federal assets and debt prepared by the Secretariat of Quebec's Bélanger-Campeau Commission — a summary of which can be found after this "Study in Brief" — suggests that Quebec's "basic share" of the federal debt should be equal to 22.8 percent. This represents the share of federal revenues derived from Quebec in recent years. After a series of adjustments related to the treatment of assets, pension liabilities, and the Bank of Canada, however, the Secretariat concludes that a sovereign Quebec would, in fact, take on only one-sixth of the gross federal debt, or $66.3 billion.[1]

1 There is a "minor" discrepancy ($4.0 billion) between this figure and the figure of $70.3 billion given by Boothe, Johnston, and Powys-Lybbe in their Table 3. The difference reflects the Bélanger-Campeau Commission Secretariat's treatment of the Bank of Canada, a point that Boothe, Johnston, and Powys-Lybbe choose to ignore.

At the other extreme, we have the historical benefits approach, as developed by Paul Boothe, Barbara Johnston, and Karrin Powys-Lybbe. The principle of this approach is that provinces should pay for the benefits they have received by being part of Canada. According to the authors, Quebec has historically received more from Ottawa than it has paid. Essentially, then, if Quebec were to separate from Canada, it would be asked to pay this money back. Calculations by Boothe, Johnston, and Powys-Lybbe indicate that Quebec's share of the debt under this approach would be $128.3 billion, with approaches based on shares of population or GDP yielding intermediate results, as shown in the table above.

On the theory that Quebec separation might conceivably lead to a complete dissolution of Canada, Boothe, Johnston, and Powys-Lybbe calculate debt shares not only for Quebec but for each province. The most striking feature of this analysis is that, under the historical benefits approach, Atlantic Canada is assigned $140 billion of federal debt — more than triple the region's GDP — while Alberta and British Columbia are assigned no debt at all.

Toward a "Solution"

The remainder of the volume consists of shorter contributions by Yvan Stringer, Irene Ip and William Robson, and John Chant. Taken as a group, these contributions make substantial "progress" toward a "solution" to the problem of how, from a purely economic or technocratic standpoint, one might "rationally" proceed to share federal assets and debt. At the risk of overstepping my editorial prerogative, I will summarize this progress with the following four points.

First, the comments by Stringer and Ip/Robson are, I think, sufficient to discredit both the historical benefits approach and the Bélanger-Campeau approach to pension liabilities and asset valuation and distribution. This narrows very substantially the range of the share of federal government gross debt that a sovereign Quebec ought to assume — to somewhere between 23 percent and 25 percent, or between $92 and $100 billion as of March 31, 1990. If Quebec became a sovereign nation on March 31, 1994, the federal debt by

then would probably be on the order of $500 billion, in which case Quebec's share would be between $115 and $125 billion.

Second, Stringer suggests a way in which a sovereign Quebec could share in the "profits" of the Bank of Canada as long as it continued to use the Canadian dollar. He accepts the Bélanger-Campeau Secretariat's proposal, while adding the crucial point that Quebec would have to lodge noninterest-bearing bonds with the Bank of Canada. If Quebec were ever to launch its own currency, the Bank would have the right to present Quebec with these bonds and to demand immediate payment in Canadian dollars. This proposal seems to deal with a major objection to the Bélanger-Campeau proposal — namely, that "the Rest of Canada" (ROC) would stand to lose billions of dollars if, at any date in the future, Quebec were to issue its own currency.[2]

Third, Ip and Robson certainly prove that the question of the valuation and distribution of assets would be, if nothing else, horrendously complicated, requiring years of study and debate to arrive at a fair and equitable solution. On the other hand, international capital markets would demand very fast action on the debt question. Ip and Robson suggest that a "rational" solution might be:

> to set up a Canada Crown asset corporation to hold all land and fixed assets from the time of breakup until such time as they could be liquidated or a satisfactory compensation formula is devised. Any income earned on the assets would be funneled through the account and distributed to the provinces in proportion to their population shares.

Finally, John Chant addresses the question of the *process* of transferring federal debt to Quebec. He argues that the issue of Quebec's share of the debt should, at some point, be submitted to

2 This solution breaks down to the extent that ROC might fear that Quebec would default on these bonds if it were ever to issue its own currency under conditions of extreme political crisis and acrimony. A possible solution, derived from John Chant, would be for the Quebec bonds held by the Bank of Canada to be "senior bonds" having precedence over all other Quebec bonds. If this were the case, a Quebec default on these bonds would automatically constitute a default on all other Quebec creditors.

binding arbitration. Perhaps more importantly, if Quebec were to assume its share of the federal debt gradually, Canada would have to protect itself against Quebec's possible failure to meet its obligations. Chant suggests that a sovereign Quebec should immediately lodge securities with Canada equal in value to Quebec's ultimate share of the debt. Moreover, the securities should be such that a default by Quebec on these securities would automatically imply a default by Quebec on all of its other outstanding bonds. This would provide Canada with a good measure of protection.

Conclusion

Taken as a package, these ideas go some distance toward limiting the "reasonable" range for Quebec's share of the federal debt and establishing "reasonable" procedures for ensuring that the interests of the two parties were protected. On the other hand, as suggested by the quote with which this summary began, it is far from clear that negotiations on these issues would, in fact, turn out to be in any way "reasonable".

John McCallum
Series Editor

The View from Bélanger-Campeau: *Quebec Public Finances under Sovereignty*

a summary by
John McCallum

This is a brief summary of a paper by the Secretariat of the Commission on the Political and Constitutional Future of Quebec [Bélanger-Campeau Commission], "Analyse pro forma des finances publiques dans l'hypothèse de la souveraineté du Québec," in Bélanger-Campeau Commission, *Éléments d'analyse économique pertinents à la révision du statut politique et constitutionnel du Québec* [Background papers], vol. 1 (Quebec, 1991), pp. 393–566. It should be noted that the Commission itself did not endorse the contents of this study.

The first part of the Bélanger-Campeau Secretariat's study proposes a method for dividing federal assets and debt in the event of Quebec sovereignty. Supporting opinions from two experts in international law are published as an appendix. The Secretariat then goes on to provide an estimate of Quebec's revenues, expenditures, and budgetary deficit in the first year of sovereignty.

This summary focuses mainly on the first of these issues: the proposed method for determining Quebec's share of federal assets and debt. This is followed by a short statement about the means by which the Secretariat proposes that Quebec would assume its share of the federal debt, as well as a brief summary of the estimated Quebec budget in the first year of sovereignty.

Quebec's Share of Federal Assets and Debt

The essential points of the Secretariat's calculations and procedures are summarized in Table 1. The "bottom-line" calculation implies that, of the total gross federal debt of $400.6 billion as of March 31, 1990, Quebec's share would be one-sixth, or $66.3 billion. A column-by-column analysis of Table 1 follows, with a view to explaining the rationale behind this calculation.

Assets and Debt: Unadjusted Figures (Column 1)

The first column of the table sets out unadjusted data on assets and debt for the "federal administration" — that is, the federal government plus the Bank of Canada.[1]

The federal administration's gross debt is equal to $400.6 billion. If the federal government's pension liabilities — amounting to $71.0 billion — are treated as a separate account, then gross debt excluding pension liabilities is $329.6 billion. Subtracting $42.5 billion in financial assets gives a net debt excluding pension liabilities of $287.1 billion. The federal government's nonfinancial assets are valued at zero — or, to be more precise, one dollar. Finally, it can be seen that "monetary liabilities" amount to $22.5 billion — consisting of $19.4 billion in currency in circulation and $3.1 billion in chartered bank deposits with the Bank of Canada. Subtracting this amount from the gross debt gives a figure of $378.1 billion for gross debt excluding monetary liabilities.

Assets and Debt: Adjusted Figures (Column 2)

In comparing columns 1 and 2, two adjustments have been made. The value of financial assets rises from $42.5 billion to $57.2 billion,

1 These figures are taken from Canada, Receiver General, *Public Accounts of Canada, 1989–90* and from *Bank of Canada Review* (March 1990).

Table 1: *Proposed Method for Determining Quebec's Share of Federal Assets and Debt*

	Total		Quebec's Share	
	Unadjusted	Adjusted		
	($ billions)		*(percent)*	*($ billions)*
1. Financial assets	42.5	57.2	3.8	2.2
2. Nonfinancial assets	0.0	72.0	18.0	13.0
3. Net debt excluding pension liabilities	287.1	200.4	22.8	45.7
4. Gross debt excluding pension liabilities (= 1 + 2 + 3)	329.6	329.6	18.5	61.0
5. Pension liabilities	71.0	71.0	13.3	9.5
6. Gross debt (= 4 + 5)	400.6	400.6	17.6	70.5
7. Monetary liabilities	22.5	22.5	18.5	4.2
8. Gross debt excluding monetary liabilities (= 6 – 7)	378.1	378.1	17.5	66.3

while the value of nonfinancial assets rises from zero to $72.0 billion. Since gross debt is unaffected by these adjustments, estimated net debt declines by the amount of the increase in total assets — that is, net debt excluding pension liabilities falls from $287.1 billion to $200.4 billion.

There are three major upward adjustments to the value of financial assets: one is designed to better reflect the market value of the government's investments in Crown corporations, another relates to the market value of gold reserves, and a third is a change in the valuation of accounts receivable. In the absence of better information, the Secretariat bases the valuation of nonfinancial assets on an estimate by the federal government's Task Force on Program Review (the Nielsen Task Force) in 1985. That report provided a figure of $40 to $60 billion for 1984, based on replacement cost. If one begins with the figure of $50 billion for 1984 and then inflates this number by the post-1984 growth of federal government fixed capital stock, one arrives at the figure of $72.0 billion.

Assets and Debt: Quebec's Share (Columns 3 and 4)

The Secretariat's basic method of calculating Quebec's share of the debt may be summarized as follows. Starting with the first four rows of Table 1, the first point to note is that Quebec's share of the net debt is said to be 22.8 percent. (As discussed in more detail below, this figure is related to Quebec's contribution to total federal revenues.) Now, if Quebec seceded from Canada and took 22.8 percent of federal assets with it, then its share of the gross debt would also be 22.8 percent. However, because an independent Quebec would acquire only about 12 percent of federal assets, its share of the gross debt would be reduced correspondingly — to 18.5 percent, or $60.8 billion.

Two other adjustments enter into the final figure. Quebec's share of pension liabilities, which are treated as a separate account, is estimated at 13.3 percent of the total, or $9.5 billion. Also, for reasons to be discussed shortly, the Secretariat argues that Quebec's share of the debt should be calculated on the basis of total liabilities excluding monetary liabilities. Hence, an amount equal to 18.5 percent of monetary liabilities, or $4.0 billion, is subtracted from Quebec's share of the federal debt. The final figure, then, is equal to $66.3 billion, which amounts to almost exactly one-sixth of the gross debt of $400.6 billion — or 17.5 percent of the gross debt excluding monetary liabilities.

A description of the rationale for Quebec's share under each of the major categories follows.

Quebec's Share: Financial Assets

The Secretariat assumes, first, that Quebec would renounce all claims to financial assets other than those relating to Crown corporations. Such corporations fall into three categories: those that Quebec would take over completely, those in which Quebec would continue to preserve its current share (assumed to be 22.8 percent), and those in

which Quebec would no longer have any interest. The Secretariat further assumes that Quebec would be free to choose which of the various government enterprises would fall into each of the three categories.

Next, the Secretariat assumes that full ownership would be restricted to a small number of enterprises, principally those related to Quebec ports and bridges. The second category, consisting of those enterprises in which Quebec maintains its current share, is assumed to consist of 15 public enterprises, including the St. Lawrence Seaway, the Canadian Dairy Commission, the National Capital Commission, Atomic Energy of Canada, the Royal Canadian Mint, Canada Post Corporation, Radio-Canada, Via Rail, and Canadian National Railways. As indicated in Table 1, the total estimated value of Quebec's share of these enterprises amounts to $2.2 billion, or 3.8 percent of total federal financial assets.

Quebec's Share: Nonfinancial Assets

The Secretariat assumes that Quebec would acquire all nonfinancial federal assets located on its territory. In the absence of better information, Quebec's share is estimated according to payments of property taxes by the federal government (or grants in lieu of taxes). Payments by the federal government to Quebec municipalities amount to about 18 percent of payments to all Canadian municipalities. Hence, Quebec's share of nonfinancial assets is estimated to be 18 percent, or $13.0 billion.

Quebec's Share: Net Debt

The Secretariat argues that the true counterpart to a government's net debt (or accumulated deficit) is the present value of future taxes and other revenue.[2] Accordingly, the correct share of the net debt is

2 Although this point is not stated, presumably the true counterpart to the net debt is the present value of the *excess* of future tax revenues over future government outlays — and not simply the present value of future tax revenues.

the share of future federal revenues that would be raised on the territory of Quebec. Since this figure for the future cannot be known, the Secretariat suggests that it is appropriate to use the corresponding figure for past contributions to federal revenues as an alternative indicator. Adopting this principle and taking account of various adjustments, Quebec's share is calculated to be 22.8 percent.

Quebec's Share: Pension Liabilities

The working hypothesis here is that federal employees currently working in Quebec (or an equivalent number) would be transferred to the government of Quebec. It is assumed that Quebec's share of pension liabilities is equal to the proportion of federal employees who currently work in Quebec, or 13.3 percent.[3]

Quebec's Share: Monetary Liabilities

The Secretariat assumes here that, in the event of sovereignty, Quebecers would continue to use the Canadian dollar but that there would be no formal Canada-Quebec monetary union. Hence, there would be a *de facto* monetary union, but Quebec would neither influence Canadian monetary policy nor receive a share of the profits of the Bank of Canada. Under these conditions, it is argued, Quebec's share of the servicing of the federal debt should be calculated after subtracting the interest on Canadian government bonds that are held by the Bank. The rationale for this procedure is that such interest payments do not represent a true cost to the federal government, since the money is returned to the federal government in the form of Bank profits.

3 An exception is made for parliamentarians and judges, for whom Quebec's share of the pension liabilities is set equal to its share in the population of Canada (25.5 percent). However, the amount of money involved under this category is relatively small ($6 million).

Legal Liability for Public Debt

The Bélanger-Campeau Secretariat mentions this issue — which would be of major importance in any Quebec-Canada negotiations — only in passing. It states that while the Quebec government would agree to pay interest on a fraction of the debt to the federal government, the full amount of the debt would remain the liability of the federal government.

Pro Forma Budget of a Sovereign Quebec: Year One

The Secretariat offers a detailed analysis of the various components of federal revenues and expenditures. For each revenue component, it estimates the fraction of federal revenue derived from Quebec, and adds this amount to the revenues of the government of a sovereign Quebec. For each expenditure component, it estimates the fraction of federal expenditure that is currently directed to Quebec, and then adds this amount to the expenditures of a sovereign Quebec. The assumption, then, is that all current federal expenditures would be replaced by a sovereign Quebec, while all current federal revenues accruing from Quebec would instead accrue to the government of a sovereign Quebec.[4] Naturally, it is also assumed that the government of a sovereign Quebec would lose the transfer payments that are now received from Ottawa.

The overall estimates based on this analysis are summarized in Table 2. Expenditures would rise by $17.9 billion, receipts from the federal government would fall by $6.8 billion, and revenues would rise by $24.5 billion. The net effect of all this would be quite small:

4 With respect to expenditures, it may be noted that no allowance is made for startup costs or the possibility of lost economies of scale in the running of certain government programs. On the other hand, the Secretariat does consider certain cases where expenditure reductions may be possible due to rationalizations. The figures presented in Table 2 are based on the assumption that total expenditures would be reduced by $260 million as a result of such rationalizations.

Table 2: *The Effect of Sovereignty on Quebec's Budget, fiscal year 1990/91*

1. Additional revenues	$24.5 billion
2. Lost transfer receipts	6.8 billion
3. Additional expenditures	17.9 billion
4. Budgetary impact before division of assets and debt (= 1 – 2 – 3)	–0.2 billion
5. Additional net interest charges	7.1 billion
6. Total budgetary impact (= 4 – 5)	–7.3 billion
7. Actual budget balance	–2.0 billion
8. Budget balance under sovereignty (= 6 + 7)	–9.3 billion
As a percentage of GDP under sovereignty	
Budget deficit	5.8 %
Gross debt	63.9 %

an increase in the deficit equal to $0.2 billion, or some $200 million — that is, 17.9 + 6.8 – 24.5. This, however, does not include the effects of the division of assets and debts, as discussed in the previous section. Net additional interest charges would amount to $7.1 billion, implying that the effect of sovereignty would be to add $7.3 billion to the Quebec government's deficit. The base case, pre-sovereignty deficit is $2.0 billion (in fiscal year 1990/91), implying a total deficit of $9.3 billion. This amounts to 5.8 percent of Quebec's gross domestic product.

Legal Issues Concerning the Division of Assets and Debt in State Succession: The Canada-Quebec Debate

Daniel Desjardins and Claude Gendron

If the law is on your side, pound on the law; if the facts are on your side, pound on the facts; if neither is on your side, pound on the table.

— Unknown

Introduction

The Canadian constitutional debate, the failure of the Meech Lake Accord, the report of the Commission on the Political and Constitutional Future of Quebec ("Bélanger-Campeau Commission"), and the report of the Constitutional Committee of the Quebec Liberal Party (the "Allaire Report") have given rise to numerous analyses of the political and economic future of Quebec and Canada. Many of these analyses, however, have treated only in a summary fashion the difficult question of the division of assets and liabilities between

The authors wish to thank Abel Mac Van and Normand Halde for the research they did for this paper and Darlene Pearson and Arlene Naveran for the translation of the text from the original French version. The authors assume full responsibility for all opinions expressed herein.

Key to Abbreviations: I.L.M. — *International Legal Material*; P.C.I.J. — *Permanent Court of International Justice*; R.I.A.A. — *Reports of International Arbitral Awards*; R.S.C. — *Revised Statutes of Canada*; U.K.T.S. — *United Kingdom Treaty Series*; U.N.T.S. — *United Nations Treaty Series*.

Canada and Quebec in the event that Quebec were to become a sovereign state.

On what basis should the assets and debts of a country be divided, and what are the legal principles applicable to such a division? These are the questions that we shall attempt to answer in this paper. We consider them to be important, because, in the course of any eventual negotiations between Canada and Quebec, the parties involved would have to take into account not only political and economic realities but also existing rules of law in this area.

State succession is not a new topic in international law, and many reputable (and lengthy) studies exist on the subject.[1] But the acquisition of sovereign status by Quebec would constitute a factual and legal situation for which there is no direct, comparable precedent. The precedents of only limited comparability that do exist may nonetheless prove to be a useful point of reference in certain respects.

Our analysis of state succession with respect to the Canada-Quebec debate addresses what we consider to be the four major legal issues involved: (1) the liability of Quebec with regard to the creditors of the national debt; (2) the division of assets; (3) the division of liabilities; and (4) the assumption of liabilities by the new state. First, however, it is important to review the principles of international law that apply to state succession.

The Applicable Principles of International Law

What is state succession? Daniel Patrick O'Connell has defined it as "the factual situation which arises when one state is substituted for another in sovereignty over a given territory."[2] The sources of international law on this question are found in treaties, precedents, and doctrine.

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1 See the reports of the International Law Commission, as well as various studies and documents submitted to the Commission for the codification of the law of state succession.

2 Daniel Patrick O'Connell, *State Succession in Municipal Law and International Law*, vol. 1 (Cambridge: Cambridge University Press, 1967), p. 3.

The Vienna Convention

In 1983, an attempt was made to codify the rules of state succession in the *Vienna Convention on Succession of States in Respect of State Property, Archives and Debts* (the "Vienna Convention").[3] Fifty-four of the 90 states present[4] at the United Nations' conference that adopted the Vienna Convention voted in its favor, 11 countries (including Canada) opposed it, and 11 countries abstained.[5]

The Vienna Convention is not yet in force; indeed, there is general agreement that, at present, it cannot be considered an authoritative source on the state of the law on the question of state succession. Nevertheless, many authors do view its provisions — with the exception of some of the more controversial ones that pertain to decolonization — as representing the present state of international law in this matter.[6] Thus, despite Canada's opposition to the adoption of the Vienna Convention, certain of its provisions may possibly apply to any eventual negotiations that might occur between Quebec and Canada, insofar as those provisions codify a recognized norm or custom in international law. We will attempt, as far as possible, to identify such norms or customs and, in the process, to outline the state of international law in this area.

The five types of succession identified in the Vienna Convention are as follows: (1) the transfer of part of the territory of one state

3 *Vienna Convention on Succession of States in Respect of State Property, Archives and Debts*, U.N. Doc. A / Conf. 117 / 14 reproduced in (1983) 22 I.L.M. at 306ff.

4 A total of 157 states were members of the U.N. at that time; for a list of all participating states, see U.N. Doc. A / Conf. 117 Inf. 2 / Rev.

5 See Jean Mennier, "La Convention de Vienne sur la succession d'États en matière de biens, archives et dettes d'État," *Annuaire français de droit international* 30 (1984): 221; and U.N. Doc. A / Conf. 117 / S.R. 10, at 15–16.

6 J.-Maurice Arbour, "Secession in International Law — Some Economic Problems in Relation to State Succession," *Cahiers de droit* 19 (1978): 285–338; and Malcolm Shaw, "Avis du professeur Malcolm Shaw," Annex B.2 to Secretariat of the Bélanger-Campeau Commission, "Analyse pro forma des finances publiques dans l'hypothèse de la souveraineté du Québec," in Bélanger-Campeau Commission, *Éléments d'analyse économique pertinents à la révision du statut politique et constitutionnel du Québec* [Background papers], vol. 1 (Quebec, 1991), pp. 520ff.]

to another state; (2) the newly independent state; (3) the unification of states; (4) the separation of part or parts of the territory of a state to form a new state; and (5) the dissolution of a state.[7]

Our study of state succession is limited to the fourth type noted above — that is, the separation of part of the territory of a state to form a new state — as the Canada-Quebec case clearly would fall within this category. It is important to note that, from a legal point of view, this type of separation results in the survival of the predecessor state (in this case, Canada), which loses part of its territory, and the emergence of an independent state on the territory lost by the predecessor state. Thus, the sovereignty exercised by the predecessor state over such territory is transferred to the new successor state (in this case, Quebec).

Two points should be made before we proceed. First, this study does not deal with the question of the right of nations to self-determination;[8] second, we have assumed that Quebec would comply with international law in the process of becoming a sovereign state.

Customary Law

Because the practice of international law in the matter of state succession has varied according to the particular era, place, and circumstances involved, its principles are also quite diverse. Many authors believe that certain customary principles codified in the

7 This differs from the *Vienna Convention on Succession of States in Respect of Treaties* (U.N. Doc. A / Conf. 80 / 31 amended by A / Conf. 80 / 31 Corr. 2), which deals with only three scenarios — namely, succession concerning part of a state's territory, newly independent states (as a result of decolonization), and the unification and separation of states.

8 On this subject, see Daniel Turp, "Le droit de sécession en droit international public," *Canadian Yearbook of International Law* 20 (1982): 24–78; José Woehrling, "Les aspects juridiques de la redéfinition du statut politique et constitutionnel du Québec" in Bélanger-Campeau Commission, *Éléments d'analyse institutionnelle, juridique et démolinguistique pertinents à la révision du statut politique et constitutionnel du Québec* [Background papers], vol. 2 (Quebec, 1991), pp. 1–110.

Vienna Convention have remained constant over time.[9] And because the convention has merely restated these existing customs of international law, the Convention, in this respect, would be applicable to the Canada-Quebec situation even if Canada were not a party to the Convention.

One of the customary principles pertaining to the division of assets commonly recognized by doctrine is that of the transmission to the successor state of any property of the predecessor state situated in what has become the territory of the successor state.[10] This principle is found in Articles 11 and 17 of the Vienna Convention.[11]

As for the division of liabilities (discussed later in the text), the practice of international law in this area to date has not, in our opinion, been sufficiently uniform to permit the emergence of an established and recognized custom.

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9 See the authors cited in note 5 above.

10 Arbour, "Secession in International Law," p. 297. See also *Appeal from a Judgment of the Hungaro-Czechoslovak Mixed Arbitral Tribunal* (The Peter Pazmany University v. The State of Czechoslovakia), 1933 P.C.I.J., Ser. A/B No. 61, Dec. 15, 1933.

11 Art. 11 — *Passing of State property without compensation*

Subject to the provisions of the articles in the present Part and unless otherwise agreed by the States concerned or decided by an appropriate international body, the passing of State property of the predecessor State to the successor State shall take place without compensation.

Art. 17 — *Separation of part or parts of the territory of a State*

1. When part or parts of the territory of a State separate from that State and form a successor State, and unless the predecessor State and the successor State otherwise agree:

(a) immovable State property of the predecessor State situated in the territory to which the succession of States relates shall pass to the successor State;

(b) movable State property of the predecessor State connected with the activity of the predecessor State in respect of the territory to which the succession of States relates shall pass to the successor State;

(c) movable State property of the predecessor State, other than that mentioned in paragraph (b), shall pass to the successor State in an equitable proportion.

2. Paragraph 1 applies when part of the territory of a State separates from that State and unites with another State.

3. The provisions of paragraphs 1 and 2 are without prejudice to any question of equitable compensation as between the predecessor State and the successor State that may arise as a result of a succession of States.

The Canada-Quebec situation would constitute a "modern" case of state succession, and would require that special attention be paid to the complex question of the determination of the nature and extent of the assets and debts to be divided.

The precedents in this area have often arisen from conquests, armed conflicts (*de bellatio*), conveyances, decolonization, and other types of secession that have little in common with the present debate. As a result, there is no easy analogy to the Canada-Quebec situation.

As in the question of the division of liabilities, there is no customary rule of international law establishing the responsibility of the successor state to the creditors of the predecessor state, in spite of the importance of this question.

The Liability of Quebec Toward Creditors of the National Debt

In view of the magnitude of the accumulated government deficit in Canada, it is important to examine first the question of the potential liability of Quebec to the creditors of loans taken out to finance this deficit. These loans generally consist of various borrowing instruments, including bonds and private loans contracted on both the Canadian and the international markets. The creditors of the national debt include a vast number of individuals, banks, and other institutions from all over the world. Is the successor state, on the occurrence of state succession, liable to these individuals, banks, and other lenders for part of the debts contracted by the predecessor state?[12] Do these creditors have a right of action against the successor state to obtain partial or full repayment of their loans?

This issue differs from, and arises independently of, issues concerning the division of the debt. In effect, it consists of determin-

12 According to Alexandre N. Sack, "Toutes les dettes contractées de façon régulière doivent être considérées, jusqu'à preuve du contraire, comme contractées dans l'intérêt de l'État entier, de tous ses territoires" ("La succession aux dettes publiques d'État," *Recueil des cours de l'Académie de droit international* 23 [1928]: 296).

ing whether third parties would have a direct claim against a sovereign Quebec in their attempts to recover moneys owing to them for debts contracted by Canada.

Since the Vienna Convention is silent on this point, let us consider whether there are other rules outside the convention that would apply under these circumstances.

The Absence of Rules and the Diversity of Proposals

Theoretical proposals on this subject abound. They include Feilchenfeld's "rule of maintenance,"[13] which requires that all debts legally contracted by a state undergoing territorial modifications be honored by the successor state;[14] Romano's proposal,[15] whereby the successor state inherits only those rights and obligations relating to the exercise of the legal authority of the predecessor state over the "transferred" territory (such as those relating to defense), and whereby the successor state also has the option to refuse by declaration certain of these obligations;[16] and the "burden and benefit" proposal developed by the Americans,[17] whereby the successor state must assume both assets and liabilities.[18]

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13 Ernst H. Feilchenfeld, *Public Debts and State Succession* (New York: MacMillan, 1931), pp. 546–570, 624–630.

14 In this paper, we do not address the question of so-called odious debt — that is, debt contracted against the interest of the successor state (for the purpose of war, for example).

15 As described in E.J. Castren, "Aspects récents de la succession d'États," *Recueil des cours de l'Académie de droit international* 78 (1951): 401.

16 This is very similar to the "pick and choose" approach discussed later in the text.

17 Herbert A. Wilkinson, "American Doctrine of State Succession," in T.T. Poulose, ed., *Succession in International Law* (New Delhi: Orient Longman, 1974), pp. 144ff.

18 "It would be unjust to permit the transferee to gain benefits accruing to the territory acquired from the use of borrowed funds unless the obligation to make repayment were undertaken." Charles Cheney Hyde, "International Law Chiefly as Interpreted and Applied by the United States," in Poulose, ed., *Succession*, p. 144.

These divergent theories and proposals were developed in dissimilar contexts, ranging from conquest to decolonization or secession, from *de bellatio* to conveyances. It is therefore difficult to assert conclusively that one theory or rule regarding the liability of the successor state to creditors of the debt of the predecessor state can be uniformly applied in all the diverse cases of state succession.

There are precedents in which the achievement of sovereignty over a territory by peaceful means has facilitated the transmission of financial obligations between predecessor states and successor states.[19] It should be noted that successor states inclined to respect and honor the obligations of the predecessor state are often motivated by financial reasons (for example, to protect their reputation on the international financial market) and political reasons (for example, to encourage recognition of their new status by other countries), which are factors operating entirely outside the application of the rules of international law.

Total Succession and Partial Succession

It is important to differentiate between total and partial state succession. In the case of total succession, the disappearance of the predecessor state leads to the transfer of all of the property of the predecessor state, including its debt, to the successor state. The successor state in effect replaces the predecessor state, whose taxing power is consequently extinguished.[20] It is therefore only fair for the successor state to assume the predecessor's debt, to ensure the survival of the guarantees securing that debt, and to protect the rights of creditors.[21]

19 In fact, certain precedents — such as India, Pakistan, Sri Lanka (formerly Ceylon), Burma, Ireland, and the United Kingdom — appear to indicate that there can be a division of obligations between predecessor and successor states on a purely consensual basis. See Poulose, ed., *Succession*, pp. 145–158.

20 Ibid., p. 142.

21 Castren, "Aspects récents de la succession d'États," p. 462.

In the case of partial succession, the taxing power and the legal identity of the predecessor state survive and permit, albeit to a reduced extent, the maintenance of the debt service by the predecessor state, thereby ensuring the survival of the creditors' avenues of recourse against their debtor. The question, then, is whether, under these circumstances, the successor state is released from all liability with respect to that debt.

Voluntary Assumption of the Debt

In our opinion, there are at present no peremptory rules or uniform customs in international law that establish any obligation on the part of a successor state toward creditors of the national debt of the predecessor state. Thus, unless the successor state has voluntarily assumed such debt, the creditors of the predecessor state have no right against the successor state.

It is interesting to note Erik J. Castren's observation that in the context of a newly created federation of states (a situation opposite to the one under discussion), the formerly independent states generally preserve their financial independence, even if only partially. They can therefore continue to service their former debt despite having lost their legal status on an international level.[22] Under these circumstances, creditors have no recourse against the newly federated state in the event that it does not respect the financial obligations of the former states now comprising the federation.[23] International practice in the area of federations is rather sparse, however, and does not in fact provide us with obvious cases of assumption of debt by the new federal entity.[24]

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22 Ibid., p. 476.

23 Ibid., p. 474.

24 Ibid.; the United States may have totally assumed the debt of certain annexed states, such as Texas and Hawaii, but was more discriminating with regard to the debts of Cuba, Puerto Rico, and the Philippines (see Poulose, ed., *Succession*, pp. 145–146.

At least according to Castren, then, it cannot be established that, under the circumstances just described, international law favors the assumption of debt by a newly constituted federal state. Certain authors, whose opinion we share, use this reasoning *a contrario* in the case of the dissolution of a union of states and affirm that, in principle, such a situation does not entail the legal succession of the national debt.[25]

Thus, within the framework of international law, Canada could not legally impose upon Quebec a direct, obligatory, and automatic assumption of any part of the national debt toward Canada's creditors. Quebec would have no obligation, in our opinion, to assume liability directly to third parties, in whole or in part, for the share of the national debt that could be attributed to it. This proposal is in accordance with the principle of privity in contracts, which holds that contracts have effect only between the contracting parties — in this case, Canada and its creditors.

In reality, however, a newly separated state could probably not expect to obtain any portion of the assets of the predecessor state without an equitable division of liabilities and a direct or indirect assumption of liabilities to third parties. Any such proposal would likely be both politically and economically untenable, for how could one propose to claim a right without assuming the financial obligations attached to such right? In short, political and economic realities would compel the successor state voluntarily to assume, either directly or indirectly, obligations toward the creditors of the national debt for its share of that debt as agreed by negotiation with the predecessor state. An indirect assumption of this nature was proposed in the report by the Bélanger-Campeau Secretariat.[26]

The methods of assumption of this debt, which are discussed in a later section, can vary greatly and depend, among other variables, on the nature of the debt to be assumed and the cooperation of the creditors involved.

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25 Ibid., pp. 477–478.

26 Bélanger-Campeau Secretariat, "Analyse pro forma des finances publiques," pp. 393–394, 495.

The Division of Assets

The primary principle guiding the division of the assets of a state is that of territorial sovereignty, which holds that a new state inherits all the properties of its predecessor situated within its territory and linked to its sovereignty.[27] This principle was followed in the cases of India, Pakistan, Sri Lanka (Ceylon), and Burma in their devolution settlements with the United Kingdom.[28] Special committees to administer the division of assets were set up when these states gained their independence. They designated as state assets not only land but also other possessions, such as railways, post offices, telegraph lines and facilities, military establishments, and various public buildings, public companies, and publicly owned equipment and facilities.

Although in both practice[29] and doctrine[30] the transfer of public property[31] by the predecessor state to the successor state is widely acknowledged, uniform criteria for the division of that property have not been established. Whereas compensation can often be negotiated, the transfer itself is not negotiable: it is simply a matter of realizing the principle of territorial sovereignty. In the view of certain authors, such as Wilkinson, the power exercised over a territory is inseparable from the administration of the property found within that territory.[32] Other authors, such as O'Connell, consider that the transfer of ownership occurs *de jure*.[33]

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27 Castren, "Aspects récents de la succession d'États," pp. 455–456.

28 Poulose, ed., *Succession*, p. 177.

29 "Third Report on State Succession in Matters Other Than Treaties," in *Yearbook of the International Law Commission (1970)*, Document ACN.4/226, at 157–161; *United Nations Tribunal in Libya*, XII R.I.A.A., at 362.

30 See the numerous examples in I. Paenson, "Les conséquences financières de la succession des États (1932–1953)," in *Yearbook of the International Law Commission (1970)*, p. 158; and Castren, "Aspects récents de la succession d'États," p. 452.

31 We will not discuss the distinction between "public" and "private" state property, since all state property in Canada is considered to be public property. See Arbour, "Secession in International Law," p. 298.

32 Wilkinson, "American Doctrine," p. 23.

33 "Only such property as pertains to sovereignty and only such part of it as is identified with ceded or annexed or seceding territory can be claimed by a successor State *ipso jure*." O'Connell, *State Succession*, 1:199.

Moreover, judging by the trend in the doctrine, this devolution does not necessarily involve any obligation on the part of the successor state to compensate the predecessor state.[34] In practice, many agreements, treaties, and other instruments of transfer do not mention payment of any indemnity to the predecessor state, though some do specifically provide for it.[35]

In our opinion, the current state of law has no hard-and-fast rule regarding the obligation of the successor state to compensate the predecessor state for assets that had previously belonged to the predecessor state.

It should be noted that the notion of "public property" in its broadest sense encompasses the property owned not only by a state, but also by its public corporations. What follows is a discussion of the "public property" of a predecessor state that, according to the principle of territorial sovereignty, would pass by law to the successor state.

Immovable Property

Immovable property situated within a "transferred" territory is, by definition, attached to the territory and falls under the legal authority of the new state. Consequently, by virtue of existing international law, one could say that public immovable property situated in Quebec would be transferred *ipso jure* to Quebec without the consent of Canada. This property would include, among other things, bridges, highways, railways, ports, airports, customs offices, post offices, public buildings, military establishments, and penitentiaries.[36]

There are, to the best of our knowledge, no rules of international law pertaining to immovable property situated outside a "trans-

34 Arbour, "Secession in International Law," p. 303; and Georg Schwarzenberger, *International Law*, 3rd ed., vol. 1 (London: Stevens, 1957), p. 87. See also Arthur Berriedale Keith, *The Theory of State Succession with Special Reference to English Colonial Law* (London: Waterlow & Sons, 1907), p. 49.

35 *Yearbook of the International Law Commission*, (1970), p. 297.

36 Arbour, "Secession in International Law," p. 303.

ferred" territory, and any solution regarding such property in the division of assets between Canada and Quebec would have to be negotiated.[37]

Movable Property and Financial Assets

Still within the framework of the principle of territorial sovereignty, both the Vienna Convention and doctrine seem to indicate that tangible movable property situated within the territory of the successor state belongs to that state.[38] This category includes property and equipment linked to the territory and used in conjunction with state activities — for example, office and computer equipment situated in real or immovable property that has been transferred to the successor state, military equipment, rolling stock (government vehicles), and telecommunications equipment.

What type of treatment should be given to financial assets (other than Canadian government interests in Crown corporations and joint ventures) and other intangible assets such as accounts receivable (including taxes), foreign-exchange accounts (including the Canadian gold reserves) and foreign-currency deposits?

The principle of territorial sovereignty would dictate that the share of financial assets related to the exercise of sovereignty or to an activity of the predecessor state in the transferred territory should go to the successor state. This would include taxes and other debt due by taxpayers. On this subject, Daniel P. O'Connell considers that "the successor state is entitled to these unpaid taxes because the debt relationship between the predecessor state and the debtor expires with the change of nationality of the debtor and the loss of sovereign authority over him."[39] However, other authors believe that taxes and

37 It should be noted that, in its study, the Bélanger-Campeau Secretariat did not contemplate any participation for Quebec in the ownership of such assets.

38 *Vienna Convention*, art. 17 (see note 10 above).

39 O'Connell, *State Succession*, 1:190.

other debt due to the predecessor state prior to the successor state's achieving sovereignty should remain the property of the predecessor state.[40]

Financial assets that have no direct link with the transferred territory — for example, Canadian gold reserves, foreign-exchange accounts, and foreign-currency deposits — would not normally be affected by state succession, because they do not fall within the ambit of the principle of territorial sovereignty.[41] The Bélanger-Campeau Secretariat does not, in fact, provide for any share for Quebec in such intangible assets.[42] It should be argued in this regard, however, that the transferred territory contributed in the past, through its economic activity and its participation in the fiscal burden, to the financial assets of the predecessor state, thereby justifying a claim to an equitable distribution of these assets.

Theoretical considerations aside, it is evident that in any division of these financial assets based on the principle of territorial sovereignty, it would be extremely difficult to determine their rightful source. A possible solution is to adopt the same approach that is used for the division of the national debt. In effect, if predecessor state's financial assets were to be applied in reduction of the national debt on the day of its division, this would amount to an apportionment of such assets on the same basis as the division of the debt.

With regard to financial assets held by the predecessor state in international financial organizations — such as the International Monetary Fund — the transfer of such property has, in certain cases, been recognized in practice.[43]

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40 Arbour, "Secession International Law," p. 307.

41 *"Fourth Report on State Succession in Matters Other Than Treaties,"* in *Yearbook of the International Law Commission (1971)*, Document A / CN.4 / 247 and Add. 1, at 196.

42 Bélanger-Campeau Secretariat, "Analyse pro forma des finances publiques," p. 427.

43 At the time of its secession from the United Arabic Republic, the Arab Republic of Syria obtained 200 shares of the predecessor state's total of 1,266 shares in the International Bank for Reconstruction and Development .

Crown Corporations

J.-Maurice Arbour cites the following words of the Special Rapporteur appointed to report on the discussions regarding the Vienna Convention study relating to Crown corporations: "[T]he successor state shall be automatically and fully subrogated to the rights which the predecessor possesses in public establishments situated in the transferred territory."[44] The notion of "public establishment" as used here would embrace Crown corporations[45] in the Canadian context.

This statement can be supported, in our view, by the principle of territorial sovereignty and by the public nature of Crown corporations, but does not by any means appear to reflect a customary practice.[46] Thus, the principle of territorial sovereignty could apply equally to the *de jure* distribution of movable and immovable assets held by Crown corporations in Quebec — as, for example, the assets of companies such as the Montreal Port Corporation and the Quebec Port Corporation.

With regard to Crown corporations owning assets in Quebec as well as in the rest of Canada — for example, the Canadian Broadcasting Corporation, the National Capital Commission, Petro-Canada, and Canada Post Corporation — the principle of territorial sovereignty would result in the assets of these entities situated in Quebec being transferred *de jure* to Quebec. Alternatively, Quebec could receive a share in the capital of these Crown corporations, calculated in proportion to the value of any of the assets of such agencies situated in Quebec. In the latter case, however, Canada's consent would be necessary.

In the case of Crown agencies having no assets in Quebec, it again appears that, in the absence of a precise rule of international law, the division of their assets (and related liabilities) would have to be negotiated.

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44 Arbour, "Secession in International Law," p. 301.

45 A list of Crown corporations can be found in the *Financial Administration Act*, c. F-11, R.S.C. 1985, Schedules I, II, and III.

46 "Sixth Report on State Succession in Matters Other Than Treaties," in *Yearbook of the International Law Commission (1973)*, Document A/CN.4/267, at 62.

The Right to "Pick and Choose"

In the matter of state succession regarding treaties, successor states may take advantage of the right to "pick and choose". Is there such a right in the area of division of assets?

In the area of state succession to treaties, the practice of "picking and choosing" consists of determining, by way of an express declaration or agreement, which treaties signed by the predecessor state will apply to the successor state.[47] This practice has been accepted in the framework of accession to independence by former colonies of the United Kingdom.[48] At the outset, agreements and treaties of a local and commercial nature were often the ones chosen to be transferred.[49] One such example is seen in the case of Ireland, which, when it gained its independence, adopted a policy of accepting only administrative or commercial, not political, treaties.[50]

In the area of the division of assets between a predecessor state and a successor state, free choice is relevant only with respect to assets that have not been transferred *de jure* to the successor state by the application of the principle of territorial sovereignty. In short, such a practice, if applicable, could be considered only with respect to public property not physically situated within the geographical territory of the successor state, such as certain financial assets — for example, Canada's gold reserves — or investments in certain Crown corporations that are not carrying on any activities within the successor state — such as the Cape Breton Development Corporation, in the case of Quebec.

In our opinion, international law does not specifically authorize the successor state's right to "pick and choose" in the area of division

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47 Daniel Patrick O'Connell, "Independence and Succession to Treaties," *British Yearbook of International Law* 38 (1962): 89ff.

48 United Kingdom–Iraq, U.K.T.S. No. 15 (1931); United Kingdom-Jordan, U.K.T.S. No. 32 (1946); United Kingdom-Malaya 279 U.N.T.S. 287 (for an exhaustive list, see John Mervyn Jones, "State Succession in the Matter of Treaties," *British Yearbook of International Law* [1947]: 367–371).

49 This was the case in India, Pakistan, and Burma.

50 O'Connell, "Independence and Succession," p. 96.

of assets and liabilities. In the absence of a constant and uniform practice relating to free choice in the division of assets, this practice can arise only in situations where the two states reach a mutual agreement on the division of assets. A successor state, without establishing its direct or indirect contribution to the value of the assets of the predecessor state that are not situated within its territory, would hardly claim rights to certain of those assets, in which it has no further interest or connection.

Neither, however, in our view, does the absence of a formal rule recognizing free choice in the division of assets establish the converse proposition — that is, that the successor state, wishing to acquire a share of certain assets situated outside its territory, must be obliged to participate in the overall division of the assets that are not covered by the principle of territorial sovereignty. Indeed, everything in this area, in our opinion, is a matter of negotiation between the parties involved.

The Division of Liabilities

Given the magnitude of the Canadian deficit, it is easy to foresee that negotiations between Quebec and Canada regarding the apportionment of the national debt would not be simple, and it goes without saying that each party would seek to reduce the share that it would be required to assume.

State Debt and Private Debt

Article 40 of the Vienna Convention provides that debt must be divided between the predecessor state and the successor state "in an equitable proportion, taking into account, in particular, the property, rights and interests" transferred to the successor state relative to the size of the state debt.[51]

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51 *Vienna Convention*, art. 40.

It is important to point out that "state debt", as defined by the Vienna Convention, means "any financial obligation of a predecessor State arising in conformity with international law towards another State, an international organization or any other subject of international law."[52] Excluded from this definition and, consequently, from the scope of the Vienna Convention, are all debts of the predecessor state owed to physical and moral persons such as banks, other financial institutions, or individual holders of bonds or other forms of loans. In fact, however, such "private" state debts constitute the largest proportion of the national debt of Canada.

The exclusion of "private" debt from the Vienna Convention need not be interpreted as infringing on the rights of creditors of the national debt.[53] In effect, as mentioned earlier, these creditors maintain all their rights and recourses against the predecessor state.

It is our view that, despite the silence of the Vienna Convention on the status of "private" state debt, no distinction should be made between "private" and "public" debt in the apportionment of liabilities between the predecessor state and the successor state.[54] This is, incidentally, the position taken by the Bélanger-Campeau Secretariat.[55] Modern practice seems generally to have followed this approach, as evidenced in the financial settlements between the United Kingdom and Ireland in 1921,[56] and between Belgium and the former Belgian Congo in 1960.[57]

52 Ibid., art. 33.

53 Ibid., art. 36.

54 See James L. Foorman and Michael E. Jehle, "Effects of State and Government Succession on Commercial Bank Loans to Foreign Sovereign Borrowers," *University of Illinois Law Review* 1 (1982): 15.

55 Bélanger-Campeau Secretariat, "Analyse pro forma des finances publiques," pp. 393ff.

56 Castren, "Aspects récents de la succession d'États," p. 412; and Shaw, "Avis du professeur Malcolm Shaw," p. 526.

57 Arbour, "Secession in International Law," p. 291; Christian Lejeune, "Le contentieux financier belgo-congolais," *Revue belge de droit international* 6 (1969): 535; Jean-Pierre de Bandt, "De quelques problèmes de la succession d'État suite à l'indépendance de la république du Congo (Léopoldville)," *Revue belge de droit international* 2 (1965): 497; and Foorman and Jehle, "Effects of State and Government Succession," p. 26.

Principles of Division

The real question with respect to the division of debts is whether the principle set forth in Article 40 of the Vienna Convention — that of division according to "equitable proportion" — has been sufficiently recognized in both international practice and doctrine to constitute a rule binding Quebec and Canada in any eventual negotiations in this matter.

There are two conflicting schools of thought on this question. The first holds that the debt of the predecessor state cannot be invoked against the successor state on the basis of the supremacy of the successor state.[58] This practice has often been adopted in situations of decolonization. The second approach is the "burden and benefit" theory, which maintains that "[the] successor's liability must be measured by the benefits which accrued to the territory concerned"[59] and that the successor state should assume a certain part of the national debt. This latter proposal does not seem to be a uniformly accepted rule of international law: "Doubts exist...with regard to general state debts, where there appears to be a move towards apportionment, although not such as to form a binding norm of international law."[60]

Other solutions have also been proposed by doctrinal writers. For example, Gaston Jèze has noted that, in the case of annexation, the successor state, which in no way participated in the debt com-

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58 In the case of the independence of a financially autonomous territory, Erik K. Castren finds that the law has adopted the principle that a change in sovereignty does not modify liability for debts, which remains the sole responsibility of the predecessor state: "la réduction du territoire ne libère pas à elle seule l'État débiteur de sa responsabilité même partielle, mais si la perte territoriale influe dans une mesure considérable sur la capacité économique de l'État, ce dernier peut éventuellement se trouver obligé à solliciter en sa faveur, du fait des conditions changées, certains *allégements* auxquels il doit être consenti car l'État ne peut pas être déclaré en faillite." Castren, "Aspects récents de la succession d'États," p. 476.

59 Foorman and Jehle, "Effects of State and Government Succession," pp. 12–13.

60 Shaw, "Avis du professeur Malcolm Shaw," pp. 520ff.

mitments of the predecessor state, can be bound only *propter ad rem* — that is, only in respect of the property related to the annexed territory.[61]

The proposals currently advanced by doctrinal writers can be summarized as follows: (1) the successor state is in no way obliged to assume any part whatsoever of the national debt of the predecessor state; (2) the successor state is obliged to assume such part of the national debt of the predecessor state as is linked to the assets transferred to the successor state; and (3) the successor state is obliged to assume such part of the national debt of the predecessor state as is determined through negotiation or otherwise to represent an "equitable proportion". This latter approach has been adopted by the Vienna Convention.

The first of the foregoing proposals — namely, that the successor state is in no way obliged to assume any part of the national debt — is hardly justifiable, given that the successor state inherits certain assets that have been financed by the national debt, and given also that this would amount to a unilateral denial by the successor state of its voluntary participation, often of long duration, in the state from which it intends to separate. In fact, this approach does not seem to be favored by modern writers on the subject.[62] Finally, as pointed out by the Bélanger-Campeau Secretariat in its commentaries on the Quebec situation, economic and financial realities are such that the successor state, as a borrower on international financial markets, will most likely be inclined to arrive at a reasonable division of the debts and assets of the predecessor state.[63]

We find more realistic the latter two proposals, which provide for the assumption of part of the national debt of the predecessor state. We should point out, however, that the second proposal — that the successor state should inherit only that share of the national debt

61 Gaston Jèze, "La répartition des dettes publiques entre États au cas de démembrement du territoire," *Revue de science et de législation financière* 19 (1921), as cited in Castren, "Aspects récents de la succession d'États," p. 465.

62 Foorman and Jehle, "Effects of State and Government Succession," p. 12.

63 Bélanger-Campeau Secretariat, "Analyse pro forma des finances publiques," p. 394.

related to the assets transferred to it — does not lead to an equitable division, particularly where the debts of the predecessor state are not linked exclusively to tangible assets.

We believe that the proposal for compulsory equitable division of the national debt more accurately reflects the current tendency of international law.[64] In this kind of division, the successor state is obligated to assume the debt related to the assets transferred to it[65] as well as an "equitable" share of the overall national debt of the predecessor state. It goes without saying that the parameters for this kind of division are subject to many political, economic, and financial variables. The major difficulty with this proposal is that each party has its own view of what constitutes an "equitable" division.

Proposed Methods for Division

The general proposal made by the Bélanger-Campeau Secretariat that Quebec's share of the national debt be in part determined in proportion to the assets that would be transferred to Quebec conforms, in our opinion, to certain current theories in international law, given that it is based on the principle of territorial sovereignty and also stipulates the assumption of a part of the national debt. Some of the assumptions on which the general proposal is based have been criticized, however, for not taking into account all federal assets situated in Quebec, which, of course, has the effect of reducing Quebec's share of these assets and, consequently, its share in the national debt.[66] The Secretariat's proposed method of evaluating the transferred assets has also been subject to criticism.[67] Thus, it must be said that although the general principles in the proposal put forth by the Secretariat comply with international law, the application of the proposal also needs to be in conformity with the "equitable" division norm.

64 O'Connell, "State Succession," vol. 1. See also Arbour, "Secession in International Law," pp. 318, 330–331; Shaw, "Avis du professeur Malcolm Shaw," pp. 520ff.

65 Sack, "La Succession aux dettes publiques," p. 277.

66 See Paul Boothe, Barbara Johnston, and Karrin Powys-Lybbe in this volume.

67 Ibid.

Other methods of division have also been suggested, such as one that argues for recognition of the "historical benefits"[68] received by Quebec within the context of Confederation. This type of division runs into the difficulty of defining the purpose for which the federal debt was incurred. In fact, to evaluate with any degree of accuracy the full extent of the "historical benefits" received by Quebec in the past, it is necessary not only to calculate them (if that is possible) but also to analyze the nature and purpose of federal expenditures and investments in Quebec as well as the impact of national policies and programs on the economy of each region of the country.[69] Note that this proposal also raises the difficult question of what time period to use for such an analysis.

Incidentally, to the best of our knowledge, no analysis to date has really addressed the question of whether the division of the liabilities of Crown corporations should follow the same pattern as the division of the national debt, without taking into account either the specific nature of each corporation or its location and activities. The same question arises with regard to guarantees given by Canada for loans to Crown corporations. To derive answers to these questions we would need a more extensive analysis of the debts of Crown corporations and the correlation between those debts and the Canadian national debt than the analyses that are currently available.

Pension Funds

With regard to pension funds, doctrine appears to have established a rule based on international practice in numerous cases where states that annexed territory assumed responsibility for the pensions due

68 R. Mansell and R. Schlenker, "An Analysis of the Regional Distribution of Federal Fiscal Balances: Updated Data" (Unpublished research paper, University of Calgary, 1990). See also Boothe, Johnston, and Powys-Lybbe in this volume. Note that the latter study examines other alternative methods, such as division based on gross domestic product or on a population basis.

69 Such as agriculture price stabilization programs, import quotas, and the Canada-U.S. auto pact. On this subject, see the papers by Boothe, Johnston, and Powys-Lybbe, and Yvan Stringer in this volume.

to various civil servants of the predecessor state.[70] In the case of partial succession, however, the survival of the legal identity of the predecessor state makes this proposed rule less authoritative. As one writer notes, "[a] successor State does not seem to be bound by the pensionary liabilities of the parent State which alone is regarded responsible for such obligations. A successor State may, however, voluntarily take over pensionary liabilities when there is specific agreement to that effect."[71]

In our view, the principle of "equitable" division of the debt and liabilities implies, even in the cases of partial succession, that the successor state has to assume part of the pension payments due to employees of the predecessor state. The Bélanger-Campeau Secretariat has taken this principle into account and, on the assumption that the federal employees working in Quebec (or, at least, the equivalent number of employees) would be transferred to the government of Quebec,[72] has proposed that Quebec assume responsibility for the pension funds of all federal civil service employees working within its territory, as well as for the pension funds (subject to certain criteria) of members of the Canadian Armed Forces and the Royal Canadian Mounted Police, elected members of Parliament, judges, and employees of Crown corporations.

Insofar as the division of these liabilities is made on an "equitable" basis, the Secretariat's proposal would, in our opinion, conform to international law.[73] Nonetheless, the proposal is still open to criticism on the grounds that the Secretariat did not take into account the fact that the federal civil service, the Canadian Armed Forces, and the Royal Canadian Mounted Police were created to be of benefit to all Canadians. In this regard, it could be argued that pension

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70 Castren, "Aspects récents de la succession d'États," p. 469; and O'Connell, *State Succession*, pp. 193–200.

71 Poulose, ed., *Succession*, p. 185.

72 Bélanger-Campeau Secretariat, "Analyse pro forma des finances publiques," p. 432.

73 Shaw, "Avis du professeur Malcolm Shaw," p. 528; and O'Connell, *State Succession*, p. 468.

liabilities pertaining to these groups should be divided on the same pro rata basis as the national debt.

Principles of Division: A Summary

In summary, although modern international law seems to favor an "equitable" division of the national debt between the predecessor state and the successor state, specifically taking into account, as stipulated in the Vienna Convention, "the property, rights and interests which pass to the successor State,"[74] no single formula has been developed for the application of this principle.

The Assumption of Liabilities

Once the predecessor state and the successor state have agreed on the division of all assets and debts, they must still negotiate the methods by which the successor state would assume responsibility for the part of the debt attributed to it.

As mentioned earlier, without a formal and direct assumption of a portion of the debt by the successor state, the predecessor state remains responsible to its creditors for the entire national debt (see pp. 9–10). It is only by way of formal assumption that the successor state becomes responsible to the creditors of the predecessor state for the part of the national debt attributed to it by agreement.

The method by which the successor state assumes this debt depends on the relationship between the predecessor state and the successor state and must take into account the nature of the debt, the instruments evidencing such debt (that is, bonds, treasury bills, loan agreements, and so on), the term of the debt (that is, short-, medium-, or long-term) and, finally, the currency of the debt.

The successor state may, for example, make an agreement with the predecessor state to assume its share of the national debt without

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74 *Vienna Convention*, art. 40.

undertaking any direct liability to the creditors of the predecessor state.[75] In this case, although the predecessor state remains solely liable to its creditors for the repayment of the entire national debt, it will have recourse against the successor state for reimbursement of the latter's share of the debt. Such an arrangement would, in many respects, be less advantageous for the predecessor state, which would prefer to have the successor state assume direct liability to such creditors.

The maturity date of the debt may be a determining factor in the choice of the method by which it will be assumed. For example, the parties could agree that the successor state would assume its share of short-term debts by reimbursing the predecessor state as such debts became due. With regard to medium- and long-term debts, however, the successor state may agree to be liable for its share directly to the creditors of the predecessor state, thereby effectively dividing up the original loan. The creditors in question would retain recourse against the predecessor state for the part of the debt kept by that state and would acquire direct recourse against the successor state for the part of the debt that it assumed.[76] Note that the assumption by the successor state of direct liability to the predecessor state's creditors for a share of the national debt would not *de facto* or *de jure* release the predecessor state from its liability for that portion of the debt. This would require the express consent of the creditors.

Indeed, regardless of the arrangements agreed upon between the predecessor state and the successor state, the accepted method of assumption cannot be imposed unilaterally on the creditors. Such creditors must be parties to all negotiations in this regard.

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75 This is the proposal of the Bélanger-Campeau Secretariat, "Analyse pro forma des finances publiques," p. 495; and Geneviève Burdeau, "Avis du professeur Geneviève Burdeau," Annex B.4 to ibid., p. 545.

76 Assumption agreements of this nature between a state and its creditors are frequent in international financing and are found in the context of agreements relating to the restructuring and refinancing of state debt.

Conclusion

The division of assets and debt between a predecessor state and a successor state is an area of international law that has given rise to many diverse and sometimes contradictory theories and proposals. International practice has nonetheless developed certain general principles, many of which are reflected in the Vienna Convention. In every case of state succession, however, these principles have been adapted to suit the particular economic, political, and financial realities of the situation. In this respect, should Quebec and Canada decide to go their separate ways, these principles may serve as guidelines, but they would have to be adapted to meet the requirements of the unique and unprecedented situation represented by these two parties.

This analysis has touched only briefly on the various legal implications of state succession that we believe relate to the Quebec-Canada debate. The numerous and complex implications of the division of Canada's assets and liabilities in the context of Quebec sovereignty only serve to highlight the gaps in international law in this area. The range of contentious issues that could result from the withdrawal of Quebec from the Canadian federation have already been addressed by other authors.[77]

The question of the division of assets and liabilities has recently begun to receive the detailed analysis it warrants. This paper is intended to serve as a basis for further reflection on, and study of, the subject as the Canada-Quebec debate unfolds.

77 See especially Louis Sabourin, "Québec-Canada: nouvelles perspectives?" (Unpublished address to the Institut France-Canada, France-Amérique, Paris, June 27, 1991); and idem, "Passion d'être, intérêts d'avoir: le sens de l'enjeu Québec-Canada" (forthcoming, Montreal, 1992).

Dismantling Confederation: The Divisive Question of the National Debt

Paul Boothe, Barbara Johnston, and Karrin Powys-Lybbe

As Canada begins the process of constitutional change, a number of economic issues must be faced. In early discussions, difficult questions related to such issues as trade, labor mobility, and the currency union have been dealt with in a cursory fashion, often using vague appeals to economic theory. Further, much of the discussion has focused on the longer term and has ignored questions of transition. One unintended result of these early discussions has been to make the resolution of these problems seem easier than it actually will be. Thus, it is important to look at these questions more closely, to give all interested parties the information necessary to make informed decisions.

The purpose of this essay is to summarize and extend recent work on one economic aspect of constitutional change — the division of federal assets and liabilities.[1] We have two main goals: first,

We would like to thank I. Ip and W. Robson of the C.D. Howe Institute, J. McCallum of McGill University, and L. Hudon and C. Seeto of the federal Department of Finance, who commented extensively on an earlier draft. This research was supported, in part, by grants from the Social Sciences and Humanities Research Council and the Western Centre for Economic Research.

1 P. Boothe and R. Harris, "The Economics of Constitutional Change: Dividing the Federal Debt," Western Centre for Economic Research Series on Constitutional Change, Research Paper 1 (Edmonton, 1991); and idem, "Alternative Divisions...

to show the effect of applying the division formula derived by Quebec's Bélanger-Campeau Commission[2] to the case of general breakup of Canada into separate regions or provinces; second, to show how alternative division formulas lead to substantially different results. The main message of this essay is that, contrary to some earlier-expressed views, if Quebec were to separate or if there were to be a more general breakup of Canada, dividing the national assets and debt will prove to be difficult and contentious.

We consider four alternative formulas for dividing assets and debt. The first is based on the proposal presented in the report of the Bélanger-Campeau Commission. The second and third use per capita shares and debt shares based on provincial gross domestic product (GDP) during the most recent economic cycle. The fourth formula is a proposal based on the historical benefits each province has derived from net federal spending.[3]

To increase comparability among the approaches, we use the same conceptual divisions as the Bélanger-Campeau Commission's proposal, which splits gross federal liabilities into three distinct components: liabilities that were incurred in the accumulation of assets, liabilities related to future pension obligations, and liabilities

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Note 1 - cont'd.

...of Federal Assets and Liabilities" (Paper presented to the conference, "Economic Dimensions of Constitutional Change," sponsored by the John Deutsch Institute for the Study of Economic Policy, Kingston, Ont., June 4–6, 1991, Mimeographed).

2 Quebec, Commission on the Political and Constitutional Future of Quebec, *Report* and accompanying background papers (Quebec, March 27, 1991), usually referred to as the "Bélanger-Campeau Commission" after the Commission's co-chairmen, Michel Bélanger and Jean Campeau. In particular, see Bélanger-Campeau Commission Secretariat, "Analyse pro forma des finances publiques dans l'hypothèse de la souveraineté du Québec," in Bélanger-Campeau Commission, *Éléments d'analyse économique pertinents à la révision du statut politique et constitutionnel du Québec* [Background papers], vol. 1 (Quebec, 1991).

3 These historical benefits have been measured in R.L. Mansell and R.C. Schlenker, "An Analysis of the Regional Distribution of Federal Fiscal Balances: Updated Data" (Unpublished research paper, University of Calgary, 1990). For a discussion of transition issues, division institutions, and possible economic effects, see the two papers by Boothe and Harris cited in note 1 above.

incurred in the past provision of government goods, services and transfers — the "accumulated deficit". The Commission proposes a separate method for the division of each component, and further divides the asset-related liabilities into financial and nonfinancial components. We also divide the components separately in our "modified Bélanger-Campeau" case. Under the other alternatives, however, a general division formula is applied to all federal liabilities.

In emphasizing the approach of the Bélanger-Campeau Commission, our intention is not to focus criticism on its division techniques, but to allow direct comparison with the three other division formulas. The Commission's division scheme is the one that has laid the groundwork for further discussions; while many criticisms have been directed at the Commission, some of which are discussed below, to reject its valuations and logic would be to prevent constructive comparisons with other division alternatives.

While the Bélanger-Campeau Commission focuses on Quebec's separation from "the Rest of Canada" (ROC), we extend the analysis to the consequences of a complete breakup of the country — or a dissolution into regions — by considering each province's debt share. There are two reasons for this approach. First, it is impossible to predict the consequences of Quebec's separation from the ROC. It may be that, faced with a Canada without Quebec, some provinces or regions will decide that they would be better off alone, which, in turn, might lead to further reconsideration of the remaining union. We are not suggesting that this *will* happen, only that the possibility should not be ignored. Second, the analysis of the different division formulas is not complete if only the Quebec-versus-ROC case is considered, because some important questions of equity and practicability would be ignored. For example, for ROC as a whole, the difference between the per capita and the GDP division schemes is a relatively insubstantial 2.3 percent of the debt. For the individual provinces, however, the implications of these formulas are very different, depending on how ROC pays for its debt share. If Newfoundlanders had to pay the 2.3 percent additional debt by themselves then the extra debt burden might be unsustainable.

The essay proceeds as follows. In the next section, we introduce the formulas for dividing the federal assets and debt, outlining the rationale behind each method. Then, we specify the method used to calculate each share and present the results. In addition, we discuss complications arising both from the actual choice of the appropriate division formula and the ability of each region to service its share. The essay concludes with a brief summary.

Four Alternative Division Formulas

The derivation of an appropriate formula for dividing up a country's debt poses an unusual problem because of the lack of an historical precedent. One recent example from the corporate world, however, is the debt division that occurred coincident with the breakup of AT&T. In this instance, the debt was allocated to the Bell Operating Companies in such a way that they all had a comparable debt-equity ratio.[4] Unfortunately, equity is a private-sector measurement that cannot be used to calculate a meaningful measure of net worth for provinces. Nevertheless, it is useful to keep this division formula in mind as we present alternatives for debt allocation.

In a sense, the formulas we have chosen represent a continuum of philosophies regarding debt division,[5] with the two polar cases being the Bélanger-Campeau Commission and the historical benefits approaches. The Commission's treatment, through its use of past tax contributions to allocate shares of the accumulated deficit, "locks in" the past benefits and costs of Confederation. In contrast, the historical benefits approach "unwinds" Confederation by allocating debt shares based on past benefits received. The approaches based on GDP shares and per capita shares represent intermediate cases.

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4 All of the companies involved received debt resulting in debt-equity ratios of 45 percent, with the exception of the Pacific Telephone and Telegraph Company, which received a 50 percent debt-equity ratio. See W.B. Turnstall, *Disconnecting Parties — Managing the Bell System Breakup: An Inside View* (New York: McGraw-Hill, 1985), p. 213.

5 We are grateful to J. Pesando for this characterization.

The Modified Bélanger-Campeau Formula

The fundamental principle underlying the Bélanger-Campeau Commission's approach is that Quebec's debt share cannot be calculated independently of the asset side of the national balance sheet. Taking that as the basic rule, the Commission divides each type of asset; the share of corresponding debt that Quebec will assume is simply a weighted average of its asset shares. While it contains no transparent division rule, the Commission's approach is essentially forward looking; where possible, it chooses those assets that will contribute most advantageously to Quebec's future development. Our modified Bélanger-Campeau formula follows the Commission's approach as closely as possible, adopting its division rationale and extending the analysis to all provinces and regions. Deviations occur only when it is impractical to reproduce the Commission's method of division; these departures will be noted.

As explained above, Bélanger-Campeau identifies that portion of financial assets of the government of Canada in which Quebec will have a future interest; Quebec takes these assets, or some portion of them. For example, the holdings of the Bank of Canada are not really assets that Quebec can share, but Quebec takes those of some enterprises — such as the Quebec Port Authority — because it would like to maintain a primary or partial interest in this government enterprise. Unfortunately, we cannot replicate this methodology for all provinces, since we cannot know what assets each province would choose. Moreover, even if such a division was possible there is no guarantee that the assets chosen would equal the total. Hence, the modified Bélanger-Campeau formula divides financial assets the same way as the accumulated deficit.

The Commission assigns to Quebec the nonfinancial assets that are presently located within its borders. Since these assets are generally immobile, this division seems straightforward — but may be difficult to implement. While there is no up-to-date measure of the value or location of all of the federal government's nonfinancial

assets, the Commission estimates the value of these assets and determines the share in Quebec by the proportion of federal grants in lieu of taxes received by Quebec municipalities in 1989. To the extent that these grants should be equal to the taxes that would have been paid on federal government property, this measure probably approximates the share of taxable federal property However, non-financial assets also include structures, equipment, and some other items that are not represented in the grants-in-lieu calculation.[6] In addition, the Commission does not take into account variations in mill rates across regions; different jurisdictions have different methods of relating assessed values to market values for property and apply different mill rates to the assessed value. For example, Quebec appears to have a lower-than-average property tax effort;[7] thus, this measure probably understates that province's share of physical property and the corresponding liabilities.

Bélanger-Campeau divides pension liabilities based on the principle that Quebec would assume responsibility for federal government employees residing in Quebec. Hence, the proportion of federal civil servants, Royal Canadian Mounted Police, and Canadian Armed Forces personnel in Quebec determines Quebec's share of related pension assets. For pensions related to parliamentarians and judges, Quebec takes a share based on its portion of the Canadian population.

Finally, the Commission assumes that the liabilities related to the provision of goods and services — the accumulated deficit — is equal to the present value of future taxes to be collected by the federal government. John McCallum observes that it would be more correct to view the accumulated deficit as the present value of the *excess* of future taxes over expenditure.[8] While it may be true that if there is

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6 We are grateful to I. Ip for detailing the items not included in the grants program. They consist of structures — such as bridges, highways, airport runways, monuments, drydocks and wharves, and dams — urban parklands, specialized equipment, such as laboratory equipment, not installed to service buildings, and hospital furnishings and equipment.

7 R.S. Smith, "Why the Canadian Property Tax(payer) Is Not Revolting," *Canadian Tax Journal* 38 (1990): 298-327.

8 See the summary of Bélanger-Campeau by J. McCallum in this volume.

no federal government there is no future federal expenditure, presumably such a breakup was not expected when the deficit was being accumulated. Nevertheless, using the Commission's rationale, Quebec's share of the accumulated deficit should be the portion of future taxes that the federal government expects to raise in the territory of Quebec. The average portion of federal revenue raised in Quebec since 1972 is assumed to represent this future share.[9]

The Per Capita Formula

The rationale behind the per capita division scheme is very simple: each Canadian citizen should assume an equal share of the debt. To the extent that this division method allocates the same per person ratio of debt to each province, this formula bears some resemblance to the AT&T division scheme. Rather than a constant debt-equity ratio, each province has a constant debt-person ratio. In the same way as the equity on a particular date determined each Bell Operating Company's share, this division formula requires that an appropriate population distribution be adopted. Clearly, if there are large migrations between regions the per capita division may cause distortions, since the effective holder of the debt share would have to be a region and not an individual. That is, Ontario would be assigned a share equal to its population on a particular date; if individuals leave after that date, Ontario is left with a larger than per capita debt share.

The GDP Share Formula

The division of debt based on the share of GDP has an equally simple rationale: provinces obtain shares according to their ability to pay. That is, the past share of each province's gross provincial product (GPP) in Canada's GDP is used as a proxy for the region's ability to pay the debt. In effect, because this formula divides debt based on

9 More precisely, this average past share is adjusted to account for additional tax points assigned to Quebec. This is discussed further in the next section.

past provincial prosperity, it incorporates regional prosperity and enterprise, as well as government investment. The value of each province's product does not include taxes, direct or indirect, or transfers. Hence this formula does not take account of the portion of some provinces' GPP that is transferred to other provinces through equalization. Because they are "have" provinces, Alberta, British Columbia, and Ontario, subsidize "have-not" provinces; under this division formula, they have to take more debt than their per capita share despite these previous subsidies.

The Historical Benefits Formula

The rationale for the historical benefits scheme is that provinces should pay for the benefits that they have received as a consequence of union with the rest of Canada. In direct contrast to that of the Bélanger-Campeau Commission, this approach to debt sharing is backward looking, since it allocates debt to provinces according to their past relationships to Confederation — that is, as contributors or recipients. Mansell and Schlenker calculate the benefits each province receives as the net federal fiscal balance by province. They treat all federal spending as a benefit in the jurisdiction in which it occurs, and balance this against all federal withdrawals from the region. These balances represent the net contribution to, or withdrawal from, each province caused by federal revenue collection, spending, and transfers through the 1961–88 period. Essentially, provinces that benefited the most from Confederation over this period receive the largest shares of the debt. Under this scheme, unlike that of Bélanger-Campeau, a province's share of assets bears no relation to its share of debt, since provinces that are net contributors to Confederation receive no debt share. (It might be perceived as unfair for these contributing provinces to receive no assets after effectively paying for a portion of them.)

It is impossible to construct a noncontroversial measure of all the economic costs and benefits that accrue to a province because of its being part of the Canadian federation. Any approach will be open

to criticism in a number of areas. For example, Mansell and Schlenker treat interest payments as a benefit to the province in which they are received. Yet, it might be argued that these payments differ from other kinds of federal spending and should be ignored in the calculation. In reality, the effect of treating interest payments in this way depends on how bond holders are geographically distributed, so that if the "have" provinces received a disproportionate share of this interest, the calculated net cost of Confederation to those provinces will be lower than it otherwise would be.

Some expenditures that occur unequally in different regions — a case in point is defense — actually have national benefits. If one assumes that these expenditures benefit all citizens equally, they should probably be allocated on a per capita basis, rather than to the region in which they occur. In addition, it would be preferable to calculate fiscal balances back to the time at which each province joined Confederation.

The major adjustment Mansell and Schlenker make to the reported numbers has to do with energy pricing.[10] Perhaps more important are the benefits beyond simple fiscal transfers — such as those from economies of scale or international market power — and the cost of regulations — such as tariffs.[11] In any event, while the estimates by Mansell and Schlenker are not conceptually ideal, they do give a useful illustration of the kinds of interregional transfers inherent in the Canadian federation, and may represent the best

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10 Although they ignore some other adjustments related to regulated pricing. Of course, the National Energy Program (NEP) resulted in massive transfers from Alberta to Central Canada and thus represented a major adjustment to the numbers. However, this is not the only source of net transfers. For example, Mansell and Schlenker calculate that Alberta continued to be a significant net contributor to Confederation in 1988, long after the removal of the NEP.

11 For an example of a measure that tries to capture some of the additional economic benefits and costs, see J. Whalley and I. Trela, *Regional Aspects of Confederation*, Collected Research Studies of the Royal Commission on the Economic Union and Development Prospects for Canada 68 (Toronto: University of Toronto Press, 1986). Their calculations suggest that, for 1981, the range of net benefits is even greater than that measured by Mansell and Schlenker. The estimate by Whalley and Trela is, however, confined to a single year, due to the data and computational demands of their approach.

available source of data on the historical net benefits each province has received from the union.

Methodology

In this section we develop the appropriate balance sheet of federal assets and liabilities and then describe the specifics of the debt division for all four division alternatives. Hence, the first task in dividing the debt is to determine the value of assets and debt held by the government of Canada. For comparability, we use the same asset and debt values in all four cases. For the most part these numbers are the same as those found in the Bélanger-Campeau Commission report. As can be seen in Table 1, however, there are some differences between the Commission's numbers and those in our modified balance sheet.

The Bélanger-Campeau Approach

The Bélanger-Campeau Commission takes the federal government's 1990 balance sheet of assets and liabilities and then makes a number of adjustments to the value of financial and nonfinancial assets. First, the Commission consolidates the basic balance sheet with the Bank of Canada in order to provide a more complete picture of the financial balance of the federal administration. This modification results in an increase of more than $1 billion in financial assets. Next, the Commission removes pensions from the balance sheet and divides pension liabilities separately. This partition reduces the value of total assets and net debt to just under $330 billion.

The Commission adjusts the value of the federal government's foreign-exchange account by a little over $6 billion to offset the undervaluation of its gold component, increasing its value from $848 million to $6.9 billion. This recalculation assumes, however, that a higher price for the gold specie could be realized upon sale. To avoid having to make any assumptions about specie prices, we remove gold from the foreign-exchange account in our modified

Table 1: *The Financial Balance of the Federal Government*
(millions of dollars)

	Public Accounts	Consolidated with Bank of Canada	Bélanger-Campeau	Modified Bélanger-Campeau
Financial assets	41,475	42,511	57,195	41,663
Foreign-exchange account	14,822	15,215	21,228	14,367
Loans, investments, and advances	20,685	21,314	26,312	21,314
Accounts receivable	2,320	2,320	5,993	2,320
Cash in transit	2,136	2,136	2,136	2,136
Other (cash)	1,512	1,526	1,526	1,526
Fixed assets	one dollar	one dollar	72,000	72,000
Accumulated deficit	286,964	287,078	200,394	215,926
Total	328,439	329,589	329,589	329,589
Gross debt	399,436	400,586	400,586	400,586

Sources: Secretariat of the Commission on the Political and Constitutional Future of Quebec [Bélanger-Campeau Commission], "Analyse pro forma des finances publiques dans l'hypothèse de la souveraineté du Québec," in Bélanger-Campeau Commission, *Éléments d'analyse économique pertinents à la révision du statut politique et constitutionnel du Québec* [Background papers], vol. 1 (Quebec, 1991), Tables 1 and 5; and authors' calculations.

formula, so that the account falls to just under $14.4 billion. Bélanger-Campeau makes further adjustments along these lines to the valuation of financial assets of government enterprises and accounts receivable.[12] Our formula omits these adjustments.

In the federal *Public Accounts*, nonfinancial assets are valued at one dollar, and no comprehensive current valuation of federal property exists. Estimating the value of physical assets is problematic given the nationwide variation, and cyclical fluctuations, in property values. Moreover, there is no obvious way to value these assets:

12 See the summary of Bélanger-Campeau by J. McCallum in this volume for details on the adjustments.

Should they be valued on the basis of replacement cost, market value, or historical cost? Bélanger-Campeau uses the estimate of the replacement value of physical assets contained in the Nielsen Task Force Report, adjusted to account for inflation and post-1984 investment by the federal government, and arrives at a figure of $72 billion — a figure that we also use.[13]

Bélanger-Campeau residually determines the value of the accumulated deficit or net debt as the difference between nonpension liabilities and assets — a figure of just under $287 billion. Our modifications increase the value of assets and correspondingly reduce the value of the accumulated deficit, but, as shown in Table 1, that deficit is a still-substantial $216 billion. The values of the various categories of assets shown in the last column of Table 1 are used throughout the remainder of the essay, as are those of pensions shown in Table 2.

The Modified Bélanger-Campeau Approach

The Bélanger-Campeau Commission divides each category separately, determines the value of each share, and then derives the total share of assets and debt as a weighted average of each component. With a few exceptions, our modified approach uses the same division, thus retaining the spirit of Bélanger-Campeau despite some adjustments to the basic numbers. Table 3 directly compares Quebec's share of assets and net debt under the Commission's accounting and division to that in our modified approach.

Beginning with the division of liabilities related to the accumulation of assets, the Commission distinguishes between three types of assets: financial assets, real assets, and government enterprises. It

13 See Canada, Task Force on Program Review [Nielsen Task Force], *Real Property: A Study Team Report* (Ottawa: Supply and Services Canada, 1985). It is worth emphasizing that while the valuation of financial and nonfinancial assets is conceptually straightforward, it is likely to be extremely difficult in practice. Any actual division exercise may well proceed relatively quickly on dividing the gross liabilities and then bog down over the valuation and subsequent division of assets.

Table 2: ***The Federal Government's Pension Fund***
(millions of dollars)

Superannuation Accounts	Amount
Public service	$33,920
Canadian Forces	21,656
RCMP	3,556
Supplementary retirement benefits	5,165
Public service	3,825
Canadian Forces	1,031
RCMP	285
Other	24
Actuarial liability allowance	6,700
Total	*70,997*

Source: Canada, Receiver General, *Public Accounts of Canada 1989–90*, Tables 7.4 and 7.9.

proposes to take no financial assets upon Quebec's independence; Quebec therefore assumes no responsibility for the corresponding liabilities. In the area of government enterprises, the Commission chooses selectively among the list of available enterprises, taking only those government enterprises that it finds attractive. The total amounts to much less than Quebec's per capita share, and so Quebec is willing to assume only a small portion of the corresponding liabilities.

For our modified division, two changes to the Commission's methodology were necessary. First, a large component of financial assets comes from the Commission's revaluation of Canada's holding of specie at current prices. Because there is no reason to expect that any part of ROC would want to purchase Quebec's share of gold at the separation-date price, we have simply removed gold from the calculation, with the idea that Quebec would get its share — divided in the same way as other financial assets — of Canada's gold holdings in specie at independence. In addition, because of our extension of this methodology to all provinces, we cannot treat financial assets as part of ROC as the Commission does.

Table 3: ***Dividing the Federal Government's Assets and Debt: A Comparison of the Bélanger-Campeau and Modified Bélanger-Campeau Approaches***
(millions of dollars)

	Bélanger-Campeau			Modified Bélanger-Campeau		
	Total	Quebec's Share		Total	Quebec's Share	
		(percent)	*(amount)*		*(percent)*	*(amount)*
Assets						
Financial assets	$57,195	3.80%	$2,169	$41,663	21.26%	$8,858
Foreign-exchange account	21,228	0.00	0	14,367	21.26	3,054
Loans, investments, and advances	26,312	0.08	2,169	21,314	21.26	4,531
Accounts receivable	5,993	0.00	0	2,320	21.26	493
Cash in transit	2,136	0.00	0	2,136	21.26	454
Other (cash)	1,526	0.00	0	1,526	21.26	324
Fixed assets	72,000	18.00	12,960	72,000	18.16	13,075
Accumulated deficit	*200,394*	*22.80*	*45,690*	*215,926*	*21.26*	*45,906*
Total	*329,589*	*18.50*	*60,819*	*329,589*	*20.58*	*67,839*
Pensions	70,997	13.30	9,456	70,997	17.28	12,268
Gross debt	*400,586*	*17.54*	*70,275*	*400,586*	*20.00*	*80,107*

Sources: Secretariat of the Commission on the Political and Constitutional Future of Quebec [Bélanger-Campeau Commission], "Analyse pro forma des finances publiques dans l'hypothèse de la souveraineté du Québec," in Bélanger-Campeau Commission, *Éléments d'analyse économique pertinents à la révision du statut politique et constitutionnel du Québec* [Background papers], vol. 1 (Quebec, 1991), Tables 9, 11; and authors' calculations.

A second modification is related to the actual division of financial assets and government enterprises. Bélanger-Campeau is selective in the financial assets and government enterprises (and corresponding liabilities) it chooses for Quebec, and its selection may be unacceptable to other regions. More importantly for this exercise, there is no way of knowing what assets other provinces would request nor what actual asset division the negotiations would produce. We deal with this issue by sharing all financial assets and government enterprises (and corresponding liabilities) among provinces according to their average historical tax contributions, as is done for the accumulated deficit. Hence, while the Commission chooses to take only the financial assets of the state companies for which Quebec would like to maintain control or participation — amounting to 8.2 percent of loans, investment, and advances, and 3.8 percent of total financial assets — in our case, Quebec receives 21.26 percent based on the province's historical contribution to federal revenue (explained in detail below).

The Commission divides real assets based on the share of grants in lieu of taxes that go to Quebec municipalities. Assuming equal tax effort, this share should proxy the share of actual property in the territory of Quebec. In our modified Bélanger-Campeau case, non-financial assets are divided in precisely the same way as the Commission does.

The most important liability is the accumulated deficit. Here, Bélanger-Campeau makes the argument that, given the government's intertemporal budget constraint, the accumulated deficit can be thought of as the present value of citizens' future tax liabilities. The Commission goes on to argue that Quebec's share should be determined by its expected share of future taxes, which, based on average contributions over the 1972–89 period, was 22.8 percent.[14]

14 To be precise, the Commission calculates average tax contributions by Quebec since 1972 and adjusts this amount, 21.3 percent, to account for federal tax-abatement agreements, arriving at a total of 22.8 percent. The documentation that the Commission provides is insufficient to permit replication of this adjustment for other provinces. Hence, we use the *Provincial Economic Accounts* (PEA)...

Thus, Quebec assumes 22.8 percent of the accumulated deficit. As is mentioned above, financial assets are also divided according to historical tax contributions.[15]

Turning to the division of liabilities related to pensions, the Bélanger-Campeau Commission calculates Quebec's share of the pension fund liabilities by breaking down the superannuation account by recipient group, as shown in Table 2. Hence, Quebec's shares of the recipient groups are used to obtain its share of each portion; a weighted average is used to derive its total share of the pension liabilities. Within the category of public service employees, the Commission specifies public servants and employees of Crown corporations; because we do not divide Crown corporations' assets separately from other financial assets, we do not make this distinction. For public servants, Canadian Armed Forces personnel, and members of the Royal Canadian Mounted Police, the Commission divides pensions according to the recipients' province[16] — and according to which Crown corporations Quebec retains interest for parliamentarians and judges, their share of pensions is divided according to Quebec's share of Canada's population. Except for the division of Crown corporations' pensions we adopt the same methodology, applying it to all provinces.

Note 14 - cont'd.

...published by Statistics Canada to determine each province's past contribution. Our figure for Quebec, 21.26 percent, is slightly different from the Commission's but retains the spirit of its approach. There is some question as to whether the PEA should be adjusted to leave out the revenue from unemployment insurance. For a full discussion of this issue, see the essay by Ip and Robson in this volume.

15 Again, we use the PEA to calculate these shares for each province. The average share of the federal government's revenue from each region should closely approximate historical contributions.

16 We obtained the number of federal employees in each province from Statistics Canada, and the number of RCMP and Canadian Armed Forces employees through their respective staffing offices. It should be noted that this method of dividing pension liabilities, as well as the valuation of the liabilities, is controversial. See Ip and Robson in this volume for more discussion of this issue.

The Per Capita Approach

In the per capita case, we divide all assets and debt, including the pension fund, according to each province's share of the population as of March 1991. We divide each category of assets separately, as in the modified Bélanger-Campeau, but we do not calculate a weighted average; each province's share of each asset and of the total debt is equal. If the share of property located in each province is not equal to the per capita share, then payments between provinces may be required.

The GDP Share Approach

In this approach, we calculate each province's GDP share using data from the *Provincial Economic Accounts* (PEA) with GPP being averaged over the years between the two most recent economic peaks, occurring in 1981 and 1989. To find these peaks, we plotted real Canadian GDP over the past decade,[17] and then used the average share of GPP in total GDP over these years to determine each province's debt share. As in the historical benefits case, assets are shared according to the per capita division rule. This methodology avoids penalizing the poorer provinces by giving them a lower-than-per-capita share of assets.

The Historical Benefits Approach

For the final alternative, the federal debt is divided according to each province's share of net fiscal benefits over the 1961–88 period. For this period, Mansell and Schlenker adjust the PEA to account for the effect of regulated prices for natural resources and a number of other factors. These other adjustments include the reallocation of federal indirect taxes between provinces and the reduction of regional inter-

17 We deflate the nominal series by the GPP deflator obtained from the *Bank of Canada Review* (May 1991).

est payments to account for foreign debt holders. In the case of energy, these adjustments effectively transfer net fiscal benefits to energy-producing provinces in periods when Canadian prices were above world prices, and from energy-producing provinces when Canadian prices were below world prices. These adjusted figures, summarized in Table 4, show the net contribution to, or withdrawal from, each province caused by federal revenue collection, spending, and transfers, and should proxy their historical net benefit from federal spending.

All provinces show a net benefit from federal spending, except for British Columbia and Alberta, which show substantial *negative* net fiscal benefits; this withdrawal is most substantial in the case of Alberta. Rather than showing a negative share of the debt, implying a payment to these two provinces, their contributions are set to zero. Assets and pension liabilities are shared on a per capita basis. For pensions, this division is used in order to account for the future benefits that pensions represent. In the case of assets, it would be unfair for Alberta and British Columbia, which are net contributors, to receive no assets; a per capita division is more equitable. Hence, all provinces take their per capita share of pensions and assets, but since, with this approach, Alberta and British Columbia have never received net benefits from federal activities, they will take no share of the debt. At the same time, they receive no compensation for their years of transfers to other regions.

Results

Alternative divisions of federal assets are presented in Table 5 and Figure 1. Because both the historical benefits and GDP share formulas use per capita sharing of assets, we look only at the per capita and modified Bélanger-Campeau formulas.

We see that, under the modified Bélanger-Campeau formula, the Atlantic region and Ontario receive larger shares of assets than their per capita shares; in the case of Ontario, the difference is 9 percent. In fact, the modified Bélanger-Campeau formula awards nearly one-half of all federal assets to Ontario. Conversely, Quebec

Table 4: ***The Regional Distribution of Federal Fiscal Balances, 1961–88***
(millions of 1990 dollars)

	1961–69	1970–79	1980–88	Total
Newfoundland	(4,741)	(13,964)	(21,528)	(40,234)
Prince Edward Island	(1,820)	(4,267)	(5,430)	(11,517)
Nova Scotia	(11,905)	(27,053)	(35,735)	(74,694)
New Brunswick	(6,129)	(16,493)	(24,252)	(46,875)
Atlantic Canada	(24,595)	(61,777)	(86,945)	(173,320)
Quebec	5,570	(46,652)	(95,373)	(136,456)
Ontario	22,538	3,650	(50,471)	(24,283)
Manitoba	(3,217)	(9,740)	(21,713)	(34,670)
Saskatchewan	(3,222)	(4,821)	(11,973)	(20,017)
Alberta	3,602	55,065	86,990	145,657
British Columbia	8,666	10,603	(9,941)	9,328
Yukon & Northwest Territories	(2,604)	(4,141)	(12,427)	(19,172)
Western Canada	3,225	46,966	30,936	81,127
All provinces	6,738	(57,813)	(201,853)	(252,933)
Outside Canada	(11,219)	(20,421)	(53,118)	(84,758)
Total	*(4,481)*	*(78,234)*	*(254,971)*	*(337,690)*

Note: Figures in parentheses denote net benefits. Totals may not add up due to rounding.

Source: R.L. Mansell and R.C. Schlenker, "An Analysis of the Regional Distribution of Federal Fiscal Balances: An Update" (Unpublished research paper, University of Calgary, 1990).

and the West receive more assets under the per capita scheme, with Quebec receiving 6 percent fewer assets under the modified Bélanger-Campeau formula than it does under the per capita rule. It is worth remembering that grants in lieu of federal taxes may well be a misleading indicator of a province's share of federal property, given differences in provincial tax effort.

Alternative divisions of federal liabilities are presented in Table 6 and Figure 2. The most similar debt divisions result from the

Figure 1: *Dividing the Federal Government's Assets, by Region*

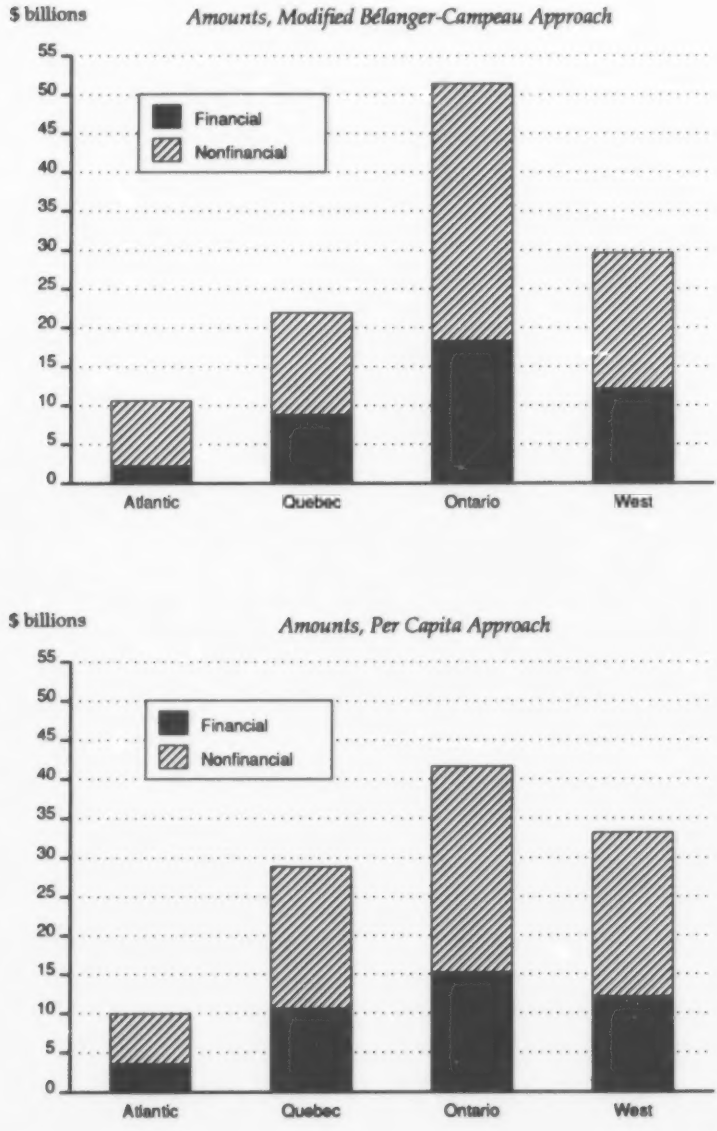
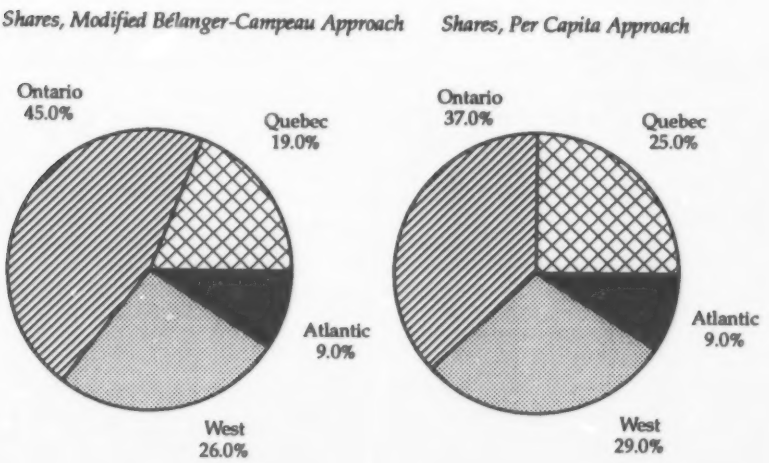


Figure 1: *Dividing the Federal Government's Assets, by Region* - continued



modified Bélanger-Campeau and per capita approaches, with the main difference between them being the shares taken by Quebec and Ontario; effectively, there is a transfer of liabilities from Quebec to Ontario due to the weight in the Bélanger-Campeau calculation of the amount of federal real property located in Ontario. In the modified Bélanger-Campeau scenario, Ontario receives 43 percent of all liabilities compared with 37 percent in the per capita case. Conversely, the modified Bélanger-Campeau formula is the most advantageous for Quebec, which accords that province a liability share that is about $21.8 billion lower than in the per capita case.

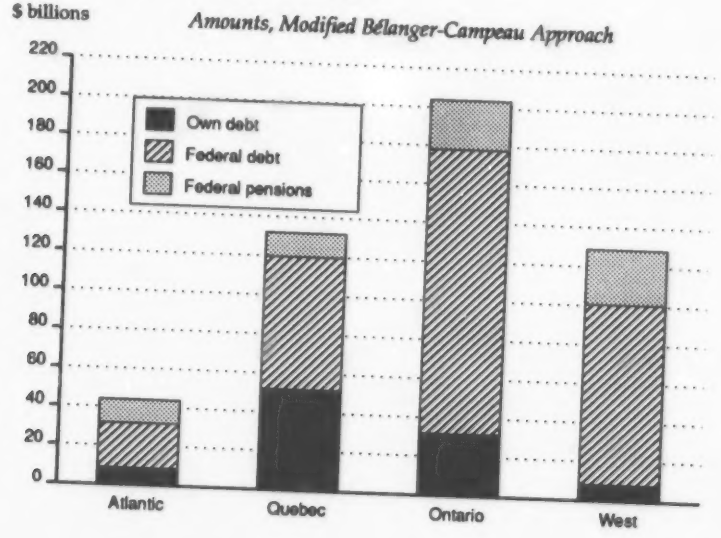
In the GDP share formula, the results for Ontario and Quebec are quite consistent with the per capita and modified Bélanger-Campeau scenarios. Atlantic Canada, however, receives only 5.94 percent of the debt — almost one-third less than in the previous two cases. Western Canada's share of federal liabilities varies from 28.2 percent to 31.3 percent under the three scenarios, which is quantitatively the same as that for Atlantic Canada but a smaller proportion of the West's total debt.

Table 5: ***Alternative Approaches to the Division of the Federal Government's Assets***
(millions of dollars)

	Modified Bélanger-Campeau Approach			Per Capita Approach		
	Financial	Nonfinancial	Total (%)	Financial	Nonfinancial	Total (%)
Newfoundland	$399	$1,110	1.33%	$900	$1,555	2.16%
Prince Edward Island	111	370	0.42	204	353	0.49
Nova Scotia	1,123	4,515	4.96	1,400	2,419	3.36
New Brunswick	753	2,369	2.75	1,133	1,958	2.72
Atlantic Canada	2,286	8,365	9.46	3,637	6,286	8.73
Quebec	8,859	13,077	19.30	10,599	18,317	25.44
Ontario	18,282	33,088	45.20	15,253	26,359	36.61
Manitoba	1,319	3,405	4.16	1,708	2,952	4.10
Saskatchewan	1,232	1,974	2.82	1,567	2,707	3.76
Alberta	4,896	4,540	8.30	3,870	6,482	11.78
Yukon & Northwest Territories	180	765	0.83	121	209	0.29
Western Canada	12,135	17,470	26.05	12,174	21,038	29.22
Total	*41,663*	*72,000*	*100.00*	*41,663*	*72,000*	*100.00*

Source: Authors' calculations.

Figure 2: *Dividing the Federal Government's Liabilities, by Region*



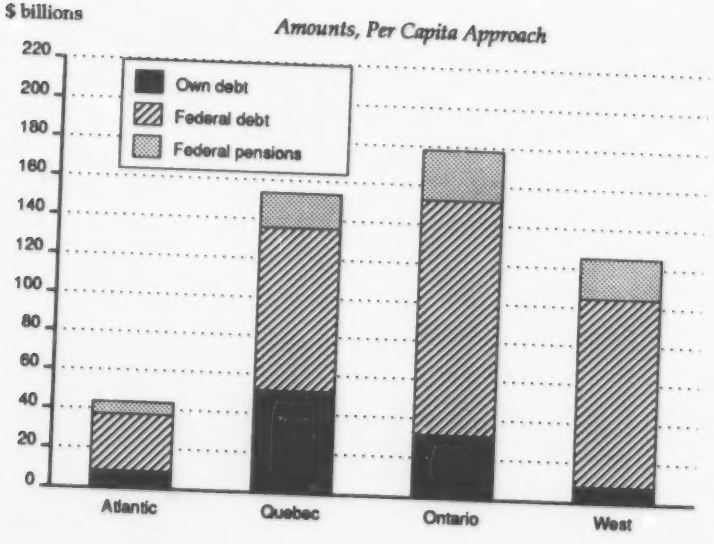
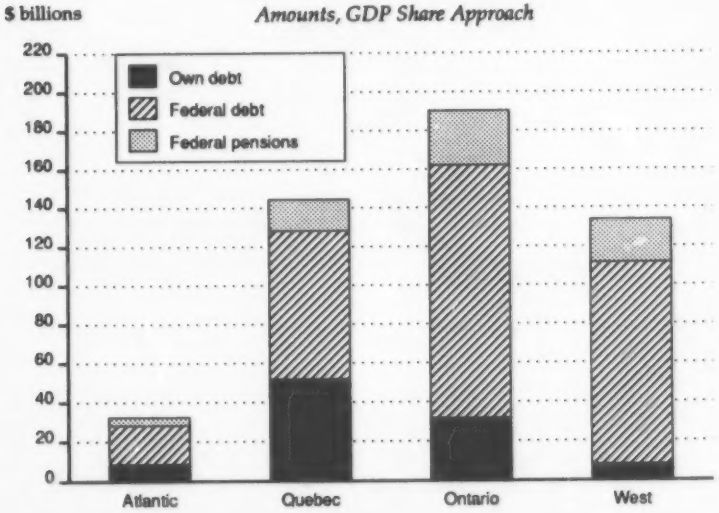


Figure 2: ***Dividing the Federal Government's Liabilities, by Region*** **- continued**



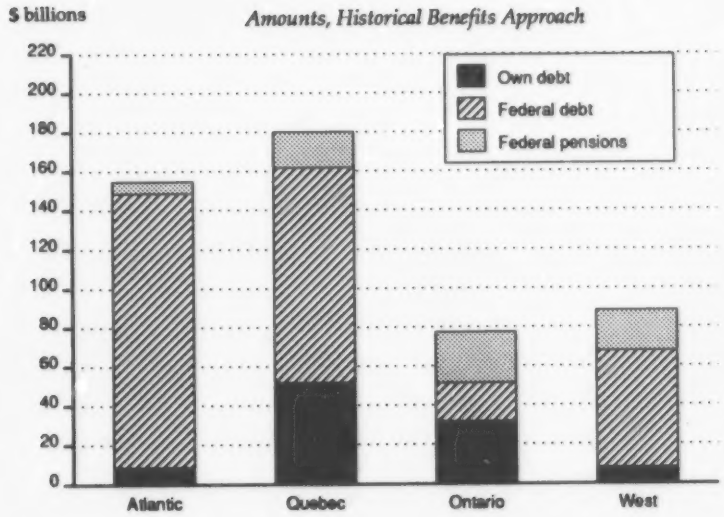
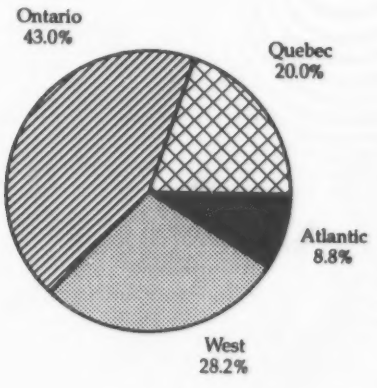
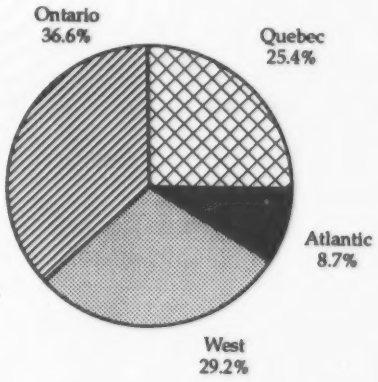


Figure 2: *Dividing the Federal Government's Liabilities, by Region* - continued

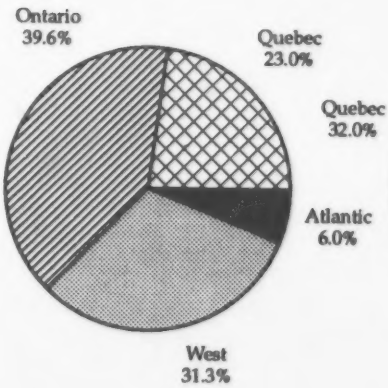
Shares, Modified Bélanger-Campeau Approach



Shares, Per Capita Approach



Shares, GDP Share Approach



Shares, Historical Benefits Approach

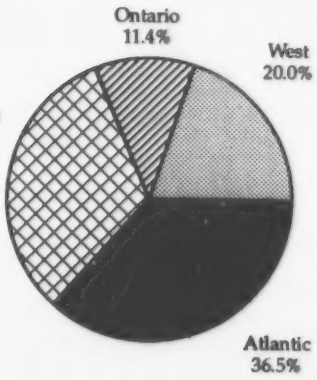


Table 6: ***Alternative Approaches to the Division of the Federal Government's Liabilities***
(billions of dollars)

	Modified Bélanger-Campeau Approach			Per Capita Approach		
	Debt	Pensions	Total (%)	Debt	Pensions	Total (%)
Newfoundland	$3.58	$1.55	1.28%	$7.10	$1.53	2.16%
Prince Edward Island	1.06	0.55	0.40	1.61	0.35	0.49
Nova Scotia	11.46	6.97	4.60	11.06	2.39	3.36
New Brunswick	7.02	2.98	2.50	8.98	1.93	2.72
Atlantic Canada	23.12	12.06	8.78	28.75	6.20	8.72
Quebec	67.85	12.27	20.00	83.84	18.06	25.44
Ontario	146.12	26.03	42.96	120.65	25.99	36.61
Manitoba	11.56	3.61	3.79	13.51	2.91	4.10
Saskatchewan	9.59	2.14	2.93	12.40	2.67	3.76
Alberta	34.81	6.34	10.27	30.63	6.60	9.29
British Columbia	34.66	8.15	10.69	38.83	8.36	11.78
Yukon & Northwest Territories	1.88	0.41	0.57	0.97	0.21	0.29
Western Canada	92.50	20.64	28.24	96.34	20.75	29.23
Total	*329.59*	*71.00*	*100.00*	*329.59*	*71.00*	*100.00*

Table 6 - continued

	GDP Share Approach			Historical Benefits Approach			
	Debt	Pensions	Total (%)	Debt	Pensions	Total (%)	Own Debt
Newfoundland	4.39	0.94	1.33	32.51	1.53	8.50	3.87
Prince Edward Island	0.95	0.21	0.29	9.31	0.35	2.41	0.30
Nova Scotia	8.01	1.72	2.43	60.35	2.39	15.66	4.90
New Brunswick	6.25	1.35	1.90	37.87	1.93	9.94	3.32
Atlantic Canada	19.59	4.22	5.94	140.04	6.20	36.51	12.38
Quebec	76.31	16.44	23.15	110.25	18.06	32.03	51.78
Ontario	130.41	28.09	39.57	19.62	25.99	11.39	31.80
Manitoba	12.03	2.59	3.65	28.01	2.91	7.72	6.00
Saskatchewan	11.38	2.45	3.45	16.17	2.67	4.70	2.28
Alberta	39.90	8.60	12.11	0.00	5.60	1.65	-3.58
British Columbia	38.54	8.30	11.69	0.00	8.36	2.09	3.67
Yukon & Northwest Territories	1.42	0.31	0.43	15.49	0.21	3.92	-0.21
Western Canada	103.28	22.25	31.34	59.68	20.75	20.08	8.17
Total	*329.59*	*71.00*	*100.00*	*329.59*	*71.00*	*100.00*	*104.12*

Source: Authors' calculations.

The most extreme results arise in the historical benefits analysis. In this scenario Quebec receives 32 percent of the debt, a larger share than it receives in any other case. The region that suffers the most, however, is Atlantic Canada, which receives fully 36.5 percent of federal debt — a debt load that is $111 billion greater than under the modified Bélanger-Campeau approach. Because Ontario and some provinces in the West do not receive equalization, these regions' historical benefits are low. Hence, both receive smaller shares in this case than in any other.[18]

Implications

A number of implications are associated with choosing a formula for dividing up the national debt. First, there are large variations under the different scenarios between the shares of debt taken not only by each region, as highlighted in the previous section, but also by each province. Moreover, in some instances, a region may be better off, while some provinces within that region are worse off, under different alternatives.

Second, there are conflicting rationales behind the various formulas. Which philosophy is preferred depends on the ultimate objective of the individual parties. For example, compare the historical benefits and GDP share approaches. In the former case, provinces pay for the benefits they have received; in the latter, provinces that can best afford it bear the burden for the others. While ignoring ability to pay may imply that provinces will receive unmanageable debt burdens, using ability to pay ignores the fact that wealthy provinces have already contributed more than their per capita share. According to the historical benefits approach, British Columbia and Alberta, two of the richest provinces, have not received *net* benefits

18 The West receives 20 percent compared with 31 percent in the GDP share formula. This is the case even without adjusting for an anomaly with the PEA data, noted by Mansell and Schlenker, which attributes substantial federal spending — and therefore about $15.5 billion in federal debt — to the Northwest Territories and the Yukon.

from Confederation, but under the GDP share approach they would be forced to pay 23.8 percent of the debt. It would be impossible for Atlantic Canada even to service the 36.5 percent share of the debt that it would receive under the historical benefits approach.

Third, since the formulas are based on past variables, an approach that seems fair today may become unfair or even unmanageable in the future. This problem is most obvious with the per capita scheme, since large migrations between provinces may drastically alter a province's debt-to-person ratio. However, such variations in the fairness of a formula may also occur if there is a significant change in a region's economic strength; a region that was wealthy in the past may become poor in the future. Both of these problems are exacerbated by the fact that out-migrations tend to occur when a province is in economic distress.

Summary

In this essay, we have examined four alternative formulas for the division of federal assets and liabilities. We have shown that choosing the appropriate division formula will be difficult. If these formulas can be regarded as representative of the kinds of positions negotiators will take, it is unlikely that a quick agreement on division of the assets and liabilities is possible given the large differences between the outcomes under different formulas.

While this essay has focused solely on division formulas, a number of difficult related issues remain, including the design of institutions to effect the split-up and the attending political and legal questions, which will require unprecedented cooperation and risk sharing among the regions. Dividing the national debt will be anything but straightforward. If it becomes necessary, we may find that it is the most difficult aspect of dismantling Confederation.

Sharing Modest Thoughts on How to Share an Immodest Debt

Yvan Stringer

If or when the time comes to divide the national debt, there will be ample room for discord. That much is made clear by the results of Paul Boothe, Barbara Johnston, and Karrin Powys-Lybbe in this volume, who present four alternative formulas for sharing the federal debt, each with its own rationale. They get quite divergent results from these formulas, and it is not clear whether one could devise a new improved formula that would win approval in most quarters. So perhaps one should concentrate on reconciling these formulas, rather than on finding new ones. Fortunately, it may be possible to find a theoretically acceptable middle ground.

This paper concentrates on the two formulas that give the most extreme results — the historical benefits formula and the formula proposed by the Bélanger-Campeau Commission.[1] Few comments are made on the gross domestic product (GDP) share and per capita share formulas because they are self-explanatory. The sharing of

I would like to thank John McCallum of McGill University and Bill Robson of the C.D. Howe Institute for their many helpful comments on an earlier version of this paper. I am also indebted to François Leroux, Robert Lévesque, and Daniel Racette of l'École des Hautes Études Commerciales for their useful suggestions.

1 Secretariat of the Commission on the Political and Constitutional Future of Quebec [Bélanger-Campeau Commission], "Analyse pro forma des finances publiques dans l'hypothèse de la souveraineté du Québec," in Bélanger-Campeau Commission, *Éléments d'analyse économique pertinents à la révision du statut politique et constitutionnel du Québec* [Background papers], vol. 1 (Quebec, 1991). See John McCallum's summary in this volume.

asset-related debt and of pension liabilities warrants some remarks, however, as it partly explains the relatively small debt share that the Bélanger-Campeau Commission obtains for Quebec.

The Historical Benefits Formula

Although apparently based on solid logical grounds, the historical benefits formula could be the most questionable of the four presented by Boothe, Johnston, and Powys-Lybbe. It calls for each province or region to share the federal debt according to the net benefits it has derived from Confederation. The provinces that have benefited the most should get the largest parts of the federal debt. This approach is appealing; after all, in the event of a breakup, it is only natural to ask who has benefited from Confederation and to apportion debt shares accordingly. But is it the right question to ask? One might say yes — if it could be answered properly. Yet the formula probably cannot be applied in such a way as to reach the implied objective. Furthermore, that objective can be challenged.

In order to compute net historical benefits, Boothe, Johnston, and Powys-Lybbe use data — as is usual in such studies — from Statistics Canada's *Provincial Economic Accounts* (PEA) for the 1961–88 period as adapted by Mansell and Schlenker.[2] In the course of determining gross provincial income, these accounts record the amounts spent and the revenues collected in each province by the federal government. The excess of federal expenditures over federal revenues for each province was taken, with a few adjustments, as the net benefit received from Confederation.

It is one thing to talk of these results as fiscal balances; it is quite another to equate them with net benefits, let alone with the net benefits of Confederation. As Boothe, Johnston, and Powys-Lybbe themselves mention, this approach leaves out quite a few costs and benefits of Confederation. For example, energy policy, the regulation of agricultural prices, import quotas, and the auto pact may have had

2 R.L. Mansell and R.C. Schlenker, "An Analysis of the Regional Distribution of Federal Fiscal Balances: Updated Data" (Unpublished research paper, University of Calgary, 1990).

important regional effects that the PEA do not even begin to capture. Boothe, Johnston, and Powys-Lybbe do include some regional effects of energy policy, on the grounds that it has had a more substantial impact than any other single regulatory policy.[3] That is not sufficient reason, however, to neglect all other such policies. Their effect may have been less than that of energy policy yet greater than that of many budgetary policies that are nevertheless included in the formula.

The task of ascertaining all effects of Confederation over an extended period is obviously huge. If it cannot be done properly, what is the point of doing it at all? The debt shares resulting from using the historical benefits formula could be quite different from the true benefit shares, and we would be sharing the federal debt in a manner that would only appear to be fair. A province that had benefited from regulatory policies would get off scot-free, while one that had received fiscal benefits would have to pay them back.[4]

On the other hand, perhaps one is justified in considering only benefits of a fiscal nature, because they are precisely the ones that produced the accumulation of debt. Transfer payments cannot, however, be so easily dissociated from the other dimensions of the question. Would they have been the same had the benefits of the Canadian common market been distributed differently or had federal regulatory and macroeconomic policies been different?[5] Moreover, if only budgetary benefits are considered, is it correct to exclude the years before 1961? After all, even though the gross debt outstanding in 1961 seems modest when stated in 1961 dollars, in 1990 dollars it represents approximately 25 percent of the 1990 debt.[6] If one wants

3 J. Whalley and I. Trela, *Regional Aspects of Confederation*, Collected Research Studies of the Royal Commission on the Economic Union and Development Prospects for Canada 68 (Toronto: University of Toronto Press, 1986).

4 Even if we managed to account for the effects of all federal policies, we would still fall short of measuring the net benefits of Confederation, which is more than the sum of federal policies.

5 This point was suggested to me by Bill Robson.

6 That percentage is obtained by simply converting the 1961 gross debt of $20 billion into 1990 dollars using the consumer price index, without adding accrued real interest. Applied to net debt, this conversion gives a proportion of 20 percent.

to determine the net benefits of Confederation, why not start earlier than 1961? The easy answer is that the PEA go back only to 1961.

Benefits or Balances?

Perhaps the PEA can be extended further back in time, but the question still remains whether their budgetary balances represent net benefits. The PEA may be fine for determining gross provincial income, but these accounts imply a particular concept of benefits with which all will not agree. Sums spent in an area are assumed to generate economic activity in that area and so are considered a benefit. Sums withdrawn from an area are presumed to reduce economic activity and so represent a cost to that area. Correct for some purposes, this Keynesian logic has its shortcomings for ours. It assumes that expenditures on goods and services create jobs that would not exist otherwise and benefit the workers deriving their income from them. Regional redistribution occurs when the worker producing a service and the taxpayer paying for it are not from the same region. Yet another way of looking at budgetary flows is equally if not more appropriate.[7] In this approach, the beneficiaries of a public service are the people to whom it is provided, to the extent that they do not pay its full cost. A regional benefit is conferred if the taxpayer is not from the same region as the consumer.

The PEA method supposes that sums expended in Ottawa by the Supreme Court or Parliament only benefit the province of Ontario, yet residents of other provinces do in fact benefit from them. The same can be said of the expenditures of the Departments of Agriculture, Employment and Immigration, and so on. According to that logic, sums expended for lobbying efforts in Washington on behalf of Western wood or Quebec pork producers benefit no one.[8] Similar logic applies to some revenue categories. Considering only tariffs col-

7 C.D. Howe Research Institute, *Why Do the Balances Differ on Federal Receipts and Expenditures in Quebec?*, Accent Québec 1 (Montreal: C.D. Howe Research Institute, 1977).

8 However, since the debt is entirely allocated to provinces with net benefits, sums spent abroad are indirectly assumed to benefit these provinces only.

lected in each province, Ontario might appear disadvantaged by trade policy, whereas many would think that it has benefited from it.

Debt Service

The limitations just mentioned may not all be empirically significant, considering that expenditures on goods and services represent a relatively small portion of federal expenditures and that some of them do not provide any benefits outside of the province where they occur.[9] The situation could be different for interest payments, which are substantial and, as Boothe, Johnston, and Powys-Lybbe suggest, are not quite like other government expenditures.

In the PEA, all interest payments made in a province are considered benefits to that province — since they are presumed to increase provincial economic activity and income. Investment income is treated as a cost — since it represents a withdrawal from the province. If the federal government sells bonds in Ontario to finance loans made in Quebec, the PEA register benefits for the former and costs for the latter. This result does not make much sense. Indeed, the opposite might be more appropriate. Interest on the public debt is a payment to bondholders for the service they are providing to the federal government, and investment income may imply a subsidy when federal loans are made at low interest rates.

The PEA treatment of interest payments explains the unexpected result, obtained by Mansell and Schlenker, of a "have" province such as Ontario having benefited from Confederation.[10] About 60 percent of the interest on the federal debt is paid in Ontario[11] and

9 Yet studies carried out in 1977 to determine whether federalism was profitable to Quebec relied on, among other things, different concepts of benefits to better prove their point. See Québec, Ministère de l'Industrie et du Commerce, "Présentation des comptes économiques du Québec, 1961–1976" (Québec, 1977); and Canada, Bureau des relations fédérales-provinciales, "Observations préliminaires sur les comptes économiques du Québec" (Ottawa, 1977).

10 Mansell and Schlenker, "An Analysis," p. 6.

11 This figure does not account for interest payments outside of Canada. See Bélanger-Campeau Secretariat, "Analyse des activités fiscales et budgétaires...

is treated as a benefit to that province. If interest payments were excluded, Ontario's share of the accumulated deficit would vanish. Quebec accounts for the second-largest share of such payments; over the 1961–88 period, interest payments represented 35 percent of Quebec's net benefits.[12] Even so, excluding them would not necessarily reduce Quebec's debt share.[13] This result depends on whether net benefits are computed for ten provinces or for only two regions, Quebec and "the Rest of Canada" (ROC). With ten provinces, Quebec's share could be reduced; with two regions, it could increase.[14]

Overall, it is probably not correct to ignore interest payments altogether. A more appropriate treatment would be to determine the primary federal deficit for each province and each year, and then convert those amounts into 1990 dollars, taking account of accrued interest. The ensuing results might differ considerably from those of Boothe, Johnston, and Powys-Lybbe or Bélanger-Campeau.

A Reasonable Approach?

A more basic problem relates to the premise of the historical benefits approach. What is it meant to accomplish? In a sense, it can be seen as an attempt to erase past effects of Confederation by recovering

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Note 11 - cont'd.

...du gouvernement fédéral: évolution et comparaisons interprovincials," in Bélanger-Campeau Commission, *Éléments d'analyse économique*, p. 306.

12 The percentage could increase to 50 percent depending on how Mansell and Schlenker made the conversion to 1990 dollars. No adjustment was made for interest payments outside Canada.

13 The evidence provided by the Bélanger-Campeau Commission is not helpful on this point because it simultaneously excludes interest payments and the effects of energy policy. See Bélanger-Campeau Secretariat, "Analyse des activités fiscales et budgétaires."

14 When the computation is for ten provinces, the debt is allocated only to provinces with net benefits. Since Quebec accounts for roughly half the interest paid to these provinces, its debt share is reduced. Ontario's share is too small to be reduced by the full amount of interest paid in that province. When the debt is shared between Quebec and ROC, the former's share is increased because it accounts for only 18 percent of all interest paid in Canada.

from each province funds expended in excess of revenues. Is this really the purpose? We can end Confederation, but do we want to undo it? We can stop equalization payments, but can we ask that they be repaid as if they had been loans? There is something highly questionable here. Can we retroactively apply the benefits-received principle to transfers that were initially justified on the ability-to-pay principle? Rules can certainly be changed, but retroactive changes are a delicate matter.[15]

Furthermore, migrations may thwart any attempt at apportioning debt shares according to benefits received. The historical benefits approach assumes that there was and will be no migration. It assumes that beneficiaries in a particular province have stayed and will stay in that province, thus bearing their share of the federal debt. Yet many individuals may have moved to another area after having benefited from federal expenditures in their province of origin. More may do so after a breakup of Canada — unless the doors between Quebec and ROC are shut tight the morning after, which appears unlikely.[16]

A Different Angle

Instead of asking what net benefits each province has derived from Confederation, one can ask who has benefited from the accumulation of federal debt. The two questions are not quite the same. The emphasis is different, and different answers emerge.

Let us approach the question indirectly, assuming for a moment that there is no federal debt. In that fortunate situation, nobody would worry about debt shares or think of computing the net benefits of Confederation. Past benefits, having been assumed through bal-

15 In an intriguing twist, one could turn the historical benefits approach around and propose a future benefits approach. Instead of asking who benefited from Confederation, one could ask who would benefit from an eventual breakup and apportion shares accordingly!

16 The fact of migration also suggests that *provincial* budgets have regional effects, to the extent that migrants have benefited from subsidized provincial services.

anced budgets, would be treated as bygones, as is implicitly done with past benefits of regulatory policies.

In reality, of course, repeated deficits have produced a huge accumulation of debt. Who has benefited from these deficits? There are unfortunately as many answers as there are ways to balance a budget. Taking the middle of the road for convenience, let us say that the deficits arose because taxes were insufficient and spending programs too generous. In this scenario, all provinces would have benefited from past deficits on both the tax and expenditure sides. Debt shares would then correspond to the average of each province's shares of federal taxes and expenditures.

The Bélanger-Campeau Commission implicitly asked the same question when it established a federal government balance sheet. Its answer differed because its assumption about the cause of debt differed. By equating the accumulated deficit to the present value of future revenues, it assumed that past deficits resulted from insufficient revenues. The intertemporal budget constraint, however, is more properly stated in terms of the present value of future primary *surpluses*.[17] If future surpluses are to be attained equally through higher taxes and reduced program expenditures, one ends up with the same solution as we did above. Let us call it the revised Bélanger-Campeau solution. It imputes the accumulated deficit to a combination of excess expenditures and inadequate revenues. In contrast, the historical benefits formula imputes the accumulated deficit to incorrect expenditures and tax shares; some provinces did not bear their share of taxes, while they received an excessive share of spending. The revised Bélanger-Campeau solution does not question these shares. It simply states that all provinces paid insufficient taxes and benefited from excessive expenditures. Thus, it can be viewed as reflecting both the ability-to-pay principle, through tax shares, and the benefits-received principle, through expenditure shares.

The revised Bélanger-Campeau solution has another merit. The emphasis in the debate on sharing the debt has generally been on

17 J. McCallum, and P. Boothe, B. Johnston, and K. Powys-Lybbe, in this volume, seem to agree on this point.

fairness and seldom on practicality. What if we searched instead for the solution that would be the least disruptive, as is being done for other aspects of separation? That solution would reproduce the current implicit solution. The current situation implies a particular division of the federal debt. Let us find that implicit solution — adding whatever adjustments are required to meet the intertemporal budget restraint. The difficulty here is in identifying current implicit debt shares. To solve the puzzle, one must ask what the situation would be in the absence of debt: would taxes be lower or expenditures higher? Given our previous assumption, debt shares again correspond to the average of expenditure and tax shares.

Although the revised Bélanger-Campeau solution needs to be more fully specified, it should increase Quebec's share somewhat, bringing it closer to the per capita share.[18] It can, however, be seen as a modified benefits formula, and, as such, it shares some of the flaws of the benefits approach. Nevertheless, it appears analytically more appropriate than either the historical benefits formula or the original Bélanger-Campeau formula, while yielding less extreme results.

Assets and Pension Liabilities

The Bélanger-Campeau Commission's choices for sharing assets and pension liabilities are among the reasons its formula gives Quebec a relatively modest share of the federal debt. Both areas deserve some further thought.

Assets

Bélanger-Campeau assigns Quebec only 3.8 percent of federal financial assets and a correspondingly small asset-related debt. That

18 One study gives Quebec an average tax and expenditure share of about 24.5 percent for selected years, excluding debt service (A. Raynauld with J.P. Vidal, "Les enjeux économiques de la souveraineté" [Montreal: Conseil du Patronat du Québec, 1990], Table 6). See also I.D. Horry and M.A. Walker, *Government Spending Facts* (Vancouver: Fraser Institute, 1991), chapter 3.

figure is inordinately low, but we should not let that fact lead us to exaggerate the problem. If one excludes the Bank of Canada, the sharing of assets need not be overly contentious. The main difficulty would probably be in the valuation of those assets.[19]

The Commission's basic principle is that Quebec should assume a dollar of debt for every dollar of assets it takes out of Confederation, and conversely. Provided assets are properly valued, no net burden is implied for anyone. This principle seems sound and should be agreeable to all. It amounts to a "future benefits" formula, since federal assets will provide income of some kind to the provinces owning them. It is thus correct for Quebec to renounce assets that have nothing to do with it. It cannot, however, forgo assets whose financing would imply continuing subsidies from ROC. In this respect, it is peculiar that Bélanger-Campeau chooses not to keep any part of federal credit institutions, such as the Canada Mortgage and Housing Corporation, even if they own financial assets in Quebec. Quebec already has similar institutions and understandably may not want duplicates. But it must keep the assets these federal institutions have there, because leaving them to ROC could entail future interprovincial subsidies. The Bélanger-Campeau Comission's position is all the more peculiar in that its budget for a separate Quebec accounts for federal subsidies to such institutions.[20] It seems obvious, in this instance, that Quebec cannot pick and choose. The federal loans, investments, and advances that the Commission chooses to keep would have to be revised.

The other financial assets that the Commission leaves to ROC — nearly half of total financial assets — consist mainly of the foreign-exchange account — along with receivables and cash in transit. Why there should be problems with such assets is not clear. Whether, for instance, Quebec takes a share of gold and foreign currency, along with an equal amount of debt, should largely be a

19 Valuation problems are discussed at length by I.K. Ip and W.B.P. Robson in this volume.

20 Bélanger-Campeau Secretariat, "Analyse pro forma," p. 423.

matter of indifference as long as these assets are properly valued. (If Quebec is not to have its own central bank, however, they are perhaps, by nature, better left to ROC.) As to nonfinancial assets, there would be obvious valuation problems, but there can be little objection to the territoriality principle outlined by Desjardins and Gendron.[21]

The most difficult issue involving assets may well concern Bélanger-Campeau's treatment of the Bank of Canada. By consolidating the Bank's balance sheet with that of the federal government, the Commission replaces approximately $20 billion of federal bonds with notes in circulation; it then applies Quebec's share to the federal debt net of its monetary component. Since Quebec would have no equity in the Bank of Canada, this approach is the Commission's roundabout way of sharing in the Bank's profits. It is easy to see why this treatment could be contentious. Whatever the understanding eventually reached in the matter, the Commission's solution has one obvious problem: if Quebec decided after a while to issue its own currency, it would end up with a reserve of Canadian dollars representing a claim on ROC. Such an outcome would be unwarranted, since Quebec would not have assumed its part of the monetary debt at the time of the breakup.[22] Therefore, the Bélanger-Campeau solution should be corrected by calling for Quebec to lodge with the Bank of Canada bonds representing its share of the monetary debt. These bonds could be redeemed if Quebec issued its own currency.

Pension Liabilities

The treatment of pension liabilities is another reason why the Bélanger-Campeau results are relatively favorable to Quebec. It applies a sharing formula based on the residence of employees to the pension funds of civil servants, the armed forces, and the RCMP, but uses a per capita rule for parliamentarians and judges. With these rules, Quebec ends up with only 13.3 percent of pension liabilities.

21 See the essay by D. Desjardins and C. Gendron in this volume.

22 For a similar analysis, see Ip and Robson in this volume.

One could rely on the benefits rationale to justify such rules.[23] One could argue, for instance, that the public security benefits provided by the RCMP are to be found mainly where one finds RCMP personnel. That could explain why, according to Bélanger-Campeau, Quebec should assume only 6.7 percent of RCMP pension liabilities. The link between benefits and employee residence is not so obvious in the case of parliamentarians, judges, or the armed forces. It may thus be appropriate to use an employee-residence rule for some funds and a per capita rule for others. If that explanation correctly reflects the Commission's thinking, however, one must ask why it applies a benefits formula to pension liabilities but not to the accumulated deficit. If the benefits rationale is appropriate in one case, why is it not in the other?[24]

More important, Bélanger-Campeau implicitly assumes, without real justification, that a specific formula should apply to pension liabilities. This assumption can certainly be challenged. Why should these liabilities not be shared like the accumulated deficit? What reason is there, for instance, to treat differently RCMP pension liabilities and the debt issued to pay RCMP personnel? Pension liabilities should be viewed as funds borrowed by the government to finance its general operations, just like the funds raised by issuing bonds. There is thus a strong case for sharing pension funds exactly like the accumulated deficit.[25]

Conclusion

Are we closer to a solution on how to divide the national debt? If the main concern is to determine fair shares for Quebec and for ROC,

23 The concept of benefits used here differs from that found in the historical benefits approach.

24 In a similar vein, one must note that Boothe, Johnston, and Powys-Lybbe apply a per capita rule to pension liabilities and a benefits formula to the accumulated deficit. Yet a benefits rule is easily applicable to pensions, since the PEA already cover some pension funds operations.

25 Ip and Robson reach the same conclusion. Notice that using such an approach would not interfere with the entirely different matter of transferring to Quebec the pension funds of federal civil servants who would become Quebec civil servants.

rather than for each province, we may be. With appropriate modifications to the Bélanger-Campeau solution, three of the formulas give roughly similar shares. The exception is the historical benefits formula, which would need considerable improvement to be used for more than illustrative purposes.

The per capita share formula has a lot going for it: it is simple, straightforward, easily understood, and perhaps generally acceptable, so its use might prevent a lot of acrimony and ill-feeling. The benefits formula scores quite low on these points. It is divisive by nature, and it could generate endless and probably fruitless discussions. The GDP share formula gives a Quebec share that is not remarkable. The revised Bélanger-Campeau solution could represent a workable compromise, in spite of some weaknesses. Having been derived from the Commission's framework, it should prove acceptable to Quebec; combined with changes in the sharing of assets and pensions, it might be acceptable to ROC as well. If pension liabilities were treated like the accumulated deficit, the revised Bélanger-Campeau solution could yield a debt share for Quebec quite similar to the per capita share. (On reflection, that might be a good reason for choosing the per capita formula!)

Considering this question's potential for discord, one is reminded of Winston Churchill's purported admonition to an assistant: "Give me the facts and I will twist them the way I want to suit my argument."[26] As the debate eventually shifts to the political arena, let us hope that it does not become too Churchillian. That prospect makes the per capita formula all the more appealing.

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26 D. Irving, *Churchill's War: The Struggle for Power* (London: Arrow Books, 1989), p. 11.

Liquidating the Federal Balance Sheet: Some Additional Modest Proposals

Irene K. Ip and William B.P. Robson

Many commentators on the costs of breakup have likened it to divorce. Without passing judgment on the aptness of the analogy, it is useful to note the procedures that are usually employed in dividing up family net assets. In general, the first step is to come to an agreement about the current value — the realizable value, if possible — of the various assets and liabilities. In the light of that assessment, bargaining begins over who gets what.

In several respects, such an approach to the division of the federal government's net debt appears to have been short-circuited by the Bélanger-Campeau Commission. Having got in first with its balance-sheet sums, it prematurely moved the debate ahead to stage two.[1] And with its idiosyncratic approach to netting various assets and liabilities against each other, it has substantially influenced much current thinking about division.

Another influence of the Commission has been to encourage some rather unrealistic expectations about Canadians' ability to

1 This is despite the fact that the background paper by the Bélanger-Campeau Commission Secretariat emphasizes the importance of accurate valuation of financial and nonfinancial assets as well as of the national debt, and goes into considerable detail about the problems involved. See Secretariat of the Commission on the Political and Constitutional Future of Quebec [Bélanger-Campeau Commission], "Analyse pro forma des finances publiques dans l'hypothèse de la souveraineté du Québec," in Bélanger-Campeau Commission, *Éléments d'analyse économique pertinents à la révision du statut politique et constitutionnel du Québec* [Background papers], vol. 1 (Quebec, 1991), p. 396.

make cool-headed calculations in the midst of the hot-blooded battle that would surround the process of liquidating the federal government. In contributing to this debate, we are conscious of keeping to a rather narrow, technical framework of analysis. Nevertheless, in the unlikely event that cooler heads prevail, it may be useful to consider a few additional points relating to the valuation of federal assets, as well as the appropriate formulas for dividing some parts of the federal balance sheet.

Different methods for valuing components of the federal balance sheet may, in fact, give even more widely varying results than those that arise from the various formulas for division. Division of the debt has been the principal focus of the other contributions to this volume, so we confine our comments on this subject to a few special factors in the latter half of this essay.

Sources of Information on the Federal Balance Sheet

To simplify subsequent discussion, it helps to start by reviewing four key sources of information about federal assets and liabilities. Anyone turning to these sources of information should bear in mind the purposes for which they were designed. None of them was organized with a view to the liquidation of the federal government; consequently, each has important drawbacks from the point of view of this exercise.

The Public Accounts

The *Public Accounts of Canada* are intended to provide an ongoing measure of federal finances conducive to effective control by Parliament. The valuation of federal assets in the *Public Accounts* is, for present purposes, deficient in two key respects:

- Nonfinancial assets are expensed in the year of acquisition. As a result, they are given a nominal value of one dollar on the

federal balance sheet. Thus, the *Public Accounts* provide no information about the current value of federal nonfinancial assets.

- Financial assets are recorded at acquisition cost, not market value. In the case of some assets — such as the Bank of Canada and the federal government's holdings of gold — this recorded value could be less than market value; in the case of others — such as student loans and loans to less-developed countries — it is more. The discrepancy in the case of investments in Crown corporations is unclear. (There is a blanket provision for non-payment or reevaluation, but no certainty that it is adequate, and no easy method of determining to which assets it applies.)

The National Balance Sheet Accounts

The *National Balance Sheet Accounts*, which are part of Statistics Canada's *System of National Accounts* (SNA), attempt to measure the federal government's impact on Canadian incomes and stock of productive capital. They present a variety of difficulties in the context of liquidating the federal balance sheet, some of which are quite serious:

- Unfunded liabilities, most notably that of the federal public service superannuation fund, are not included. Transactions of this fund form part of federal revenues and expenditures, reducing the measured federal deficit — and, consequently, the level of liabilities — in the SNA.
- The value of fixed assets, equipment and inventories is based on acquisition cost — depreciated where appropriate, and adjusted for inflation — rather than on replacement cost or liquidation value.
- Assets purchased for national defense, natural resources, foreign property, and nonpurchased land are excluded.
- Federal government investments in Crown corporations are shown at book value.

The Federal Government Reporting Study

The *Federal Government Reporting Study* (FGRS), released in 1986, was a one-time project that set out to identify the sort of information sought by users of federal government financial data and the use to which that information was put. As part of the FGRS, an illustrative annual financial report was developed to be used as a research and discussion tool. Included in the financial report was a prototype balance sheet as at March 31, 1985, which provided a more informative summary of federal assets and liabilities than that available in the *Public Accounts*.[2] For the purpose of calculating a liquidation value, however, even the improved accounting of the FGRS leaves important questions unanswered. For example, physical assets are valued at depreciated historical cost, and land is not valued at all.

The Task Force on Program Review: Report on Real Property

The purpose of the volume on real property in the 1984 Task Force on Program Review (the Nielsen Report), was to make recommendations for increased responsibility for, and increased efficiency in, the management of real property in the federal domain. In the course of examining the various agencies and departments that were responsible for these properties, the task force gave estimations *where available* of the replacement value of the assets. Where no such estimate was to hand, the "worth of the asset" was given, but, in many cases, the only information available was the number of buildings, canals, bridges, and so on, and the number of hectares of land in the government's possession. The resulting total estimate of $40 billion to $60 billion, which has been cited frequently in the

2 The Bélanger-Campeau study did not make direct use of this balance sheet, pointing out that it is no longer appropriate to use it because of the numerous changes in the composition and size of the federal balance sheet (including the effects of many privatizations) that have occurred since 1985 (ibid., p. 402). The Bélanger-Campeau background paper did use the FGRS as a guide in its adjustments to the federal *Public Accounts* balance sheet.

course of the constitutional debate, formed the basis for the Bélanger-Campeau calculation of a $72 billion value (in 1990 dollars) for federal nonfinancial assets. But, as the background paper put it, this number "ne peut être qu'approximative."[3]

Measuring Federal Government Assets

The difference between the Bélanger-Campeau Commission's bottom line on the appropriate share of net federal debt to be assumed by a sovereign Quebec and the amount that a per capita or GDP-based measure would yield is sensitive to nothing so much as the Commission's measurement and allocation of federal assets. We turn now to the question of valuation. Our focus is on physical assets. The only financial asset posing extraordinary problems in this context, the Bank of Canada, is dealt with in our discussion of division. The valuation of "loans, investments, and advances" — which make up the bulk of the financial assets shown on the asset side of the *Public Accounts* balance sheet — and the valuation of federal government holdings of gold for liquidation purposes need not be contentious; both are, in principle, marketable assets that can be sold for whatever they will fetch.[4]

Nonfinancial Assets

The valuation of federal nonfinancial assets poses enormous problems. In the first place, a comprehensive list of all government assets

3 Ibid., p. 414.

4 This is a more straightforward approach to valuing loans, investments, and advances than that represented in the Bélanger-Campeau background paper. While recognizing the need to value the assets in Crown corporations at the market, the Commission Secretariat, which was the author of the paper, claims that there was insufficient time to do the work (ibid., p. 409). Instead, the Secretariat adjusted the book value given in the *Public Accounts* to reflect the value added in the enterprise attributable to the government's investment. Unfortunately, this exercise does not necessarily bring about a valuation that is closer than the *Public Accounts* figure to the market value.

would have to be compiled — in itself a daunting task. The inventory would include land, buildings and other fixed assets, and machinery and equipment, not to mention patents, works of art, and artifacts. Next, liquidation value — or something approximating it — would have to be determined.[5]

To make rough modifications to numbers that were derived for different purposes in the sources reviewed earlier (as the Bélanger-Campeau Commission did in its calculation of a $72 billion liquidation value) would only compound the damage already done. Instead, we shall concentrate here on developing an acceptable method of determining the value of the updated inventory of non-financial assets.

Fixed Assets

Fixed assets are fairly heterogeneous — their one common, and distinguishing, characteristic is that, if the country were divided, it would be very difficult for fixed assets on one side of the divide to be controlled by the government on the other. For valuation purposes, it makes sense to consider fixed assets in groups distinguished according to criteria such as their expected economic return, the existence of comparable tradable assets in the private sector, and the degree of difficulty in liquidating them.

- *Assets that provide no economic benefit.* Assets that are of no economic value and require little maintenance — for example, monuments and some historical sites — should be given a zero value. There are other assets that do not increase a province's

5 Such an evaluation is not easily accomplished. The Commission Secretariat consulted the Montreal accounting firm of Raymond, Chabot, Martin, Paré et cie to explore the problem. The resulting report on the accounting methods used in evaluating assets and liabilities of public administrations in Canada was included in volume 1 of the background papers. It emphasized the enormity of the task and concluded that the advice of experts would have to be sought in many instances. Due to the time constraint, however, no evaluations were carried out by the consultants. The exploratory study did, however, define the major problems in evaluating the balance sheet of the federal government (ibid., p. 510).

economic potential but do entail some fairly onerous outlays for their upkeep — for example, some marine facilities, historic and recreational canals, bridges, and various symbolic and heritage buildings. Ideally, these assets should be given a negative value; for practical purposes, however, they too should probably be valued at zero.

- *Assets that generate an economic benefit but carry financial obligations.* There are a number of assets for which no market value could possibly be estimated. In many cases, these "assets" are characterized by a quantifiable expenditure obligation but an unquantifiable positive economic return.[6] In the case of some of these assets (such as the highways through Banff and Jasper national parks), the present value may well be positive, while in the case of others (such as many bridges) it is very likely to be negative. Nevertheless, it would be virtually impossible to estimate a meaningful present value for any of them, and they might just as well be given a zero value. The guide as to what to include in this group should be the Nielsen Report.[7]
- *Income-producing assets.* Many income-producing assets, such as Pearson, Mirabel, Dorval, and a number of other airports, are already in the process of being privatized. In any prospective assessment of asset shares, these should be treated separately, since by the time of breakup, it is possible that they will already

6 Indeed, the financial burden of many assets such as canals is probably the main reason that provinces have resisted the federal government's efforts to transfer them in the past.

7 It might be argued that, in some instances, provincial governments should have paid for such assets in the first place and that the federal government has been bearing the cost of a task that, but for extraordinary federal involvement, the provinces would have been shouldering all along. (In 1984–85, the federal government spent $81 million to maintain and operate the Northwest Territories and Yukon highway system and to upgrade the Trans-Canada Highway through the national parks.) To give such assets a zero value (in the context of a transfer) would appear to bestow an unfair advantage on the provinces involved. Nevertheless, in recommending that the federal government divest itself of these program responsibilities, the Nielsen Report did not suggest that any compensation be paid by the provinces. See Canada, Task Force on Program Review, *Report on Real Property* (Ottawa, 1984), pp. 232–233.

have been sold. In principle, those that remain unsold can be treated in the same way as marketable financial assets and valued at the post-separation market price or sold for whatever they can fetch, in such cases where that is desirable and feasible. Besides airports, assets in this category include housing, commercial buildings, some bridges, National Research Council facilities, agricultural property, museums, the National Arts Centre, Atomic Energy of Canada, the St. Lawrence Seaway, and the operations of the Royal Canadian Mint that are not directly related to the issue of domestic currency.

Movable Assets

Most movable assets — with the notable exception of military hardware (which also presents problems when it comes to division) — could, presumably, be priced fairly easily. Movable assets encompass transportation equipment, including civil air and marine craft, works of art, artifacts, books, and furniture.

Land

One possible approach to the valuation of land is to treat certain parcels separately, notably Indian reserve land and areas subject to aboriginal land claims. Land located in areas where market valuation is possible — particularly land in urban areas — could be priced accordingly. The rest might be given a notional price per hectare. However, where it is important for environmental reasons to keep the land in its natural state — a costly endeavor that would bring external benefits that far outweigh the benefits to the province — the value should be set at zero.

Summary Observation

The procedures outlined here are intended to illustrate the kinds of issues that would have to be addressed in any attempt in trying to determine the value of the federal government's balance sheet for

the purpose of allocating its assets and liabilities among the provinces. There are no easy answers to many of the problems of valuation, which might again serve to remind Canadians that bitter deadlock is by far the most likely outcome of a negotiation over federal assets and liabilities. Nevertheless, in the spirit of the exercise, we now address the problem of division.

Formulas for the Division of Federal Assets and Liabilities

Far more has been written on *how* to divide than on *what* to divide, and there is no shortage of proposed formulas for division. What is clear to us, however, is that there is no one formula that can be applied to any single summary balance-sheet measure, for example, to gross liabilities minus financial and nonfinancial assets. The issues pertaining to division formulas have been dealt with at length by several contributors to this volume. We put forward our thoughts on a few problematic areas that have not been dealt with by the other authors.

As a general principle, we tend to favor per capita division formulas. A key shortcoming of approaches that base division of the debt on future tax liabilities — which, in fact, turn out to be related to past tax liabilities — is that shares of future tax revenues could be markedly different from those that would have applied in the past. For example, the distribution of the goods and services tax is likely very different from that of the manufacturers' sales tax. In addition, such approaches fail to measure a province's true burden of federal revenue, especially with respect to excise and corporate income taxes, the incidence of which is unlikely to coincide with geographical apportionment.[8] Not only is a division based on population most

8 Should a future-tax liability approach in fact be adopted, unemployment insurance (UI) revenue, at the very least, should be left out. The Employer/Employee Account has always been balanced over time, with interest charges on borrowing directly related to the UI deficits being charged to the account. Since the account was very recently in balance, virtually none of the present total federal debt relates to future UI premiums (except for the accumulated deficit in the account over the past year or so, which can easily be dispensed with).

likely to be acceptable to the average Canadian, but applied to the case of a sovereign Quebec (SQ) and "the Rest of Canada" (ROC) — the main scenario of interest here — it yields results that are acceptably close to measures based on taxes or gross domestic product, or to averages between such measures.

Dividing Federal Assets

At least in the context of a per capita division, most financial and movable assets, being transferable either before or after liquidation, present no problems whatsoever. This is not the case with assets such as the Bank of Canada or with immovable assets.

The Bank of Canada

Indeed, the Bank of Canada presents a difficult problem. Not only does the Bank's book value ($5 million) enormously understate its financial importance (the Bank's profits remitted to the federal government in 1990 alone were $2.5 billion),[9] a central bank is not an institution that lends itself to sale and subsequent distribution of proceeds. What is at issue here is the potential payment of seigniorage by SQ to ROC if SQ were to continue to use the ROC dollar after breakup.

Dividing ownership of the Bank between the government of SQ and the government of ROC is, from a technical point of view, a plausible approach to maintaining the monetary union, since SQ could receive its share of the Bank of ROC's profits as a dividend. If SQ and ROC shared a currency and a central bank, there would be no difficulty, in principle, with dividing ownership of the Bank of Canada on a basis related to likely use of currency — say, by popu-

9 These profits arise because the Bank of Canada's balance sheet is made up predominantly of income-bearing assets (mainly federal government debt) and noninterest-bearing liabilities (mainly currency). Each year, the excess of Bank revenue (mainly interest) over expenses — which represents the Bank's profits on its right to issue currency, or seigniorage — is remitted to the federal government.

lation or GDP. The difficulty arises if, as in the Bélanger-Campeau scenario, the arrangement is such that SQ uses the ROC dollar unilaterally. In that case, for ROC to relieve SQ of the seigniorage related to outstanding currency at the time of separation by compensating SQ for its share of the Bank's income-producing assets — which is what the Bélanger-Campeau Commission's recommendation to cancel SQ's share of the federal debt held by the Bank amounts to — ROC would have to be assured that SQ would continue to use the ROC dollar.

It is important to note, however, that this is not an assurance SQ can give. Even if SQ politicians did sincerely intend to maintain the link (and ROC might have suspicions on this score), it is possible that a confidence-related financial crisis involving a large outflow of capital from SQ could force the SQ government to issue its own currency.[10] Regardless of the reason, the prospect of compensating SQ in advance for seigniorage that, following the issue of its own currency, SQ would not pay, cannot be an attractive one for ROC. Accordingly, any treatment of the Bank of Canada along the lines suggested by Bélanger-Campeau looks like a nonstarter from ROC's point of view.[11]

Fixed Assets and Land

Immovable assets also present a problem, since, in any division of assets, they would belong to the territory in which they were situated. To follow the per capita division rule in this case would require a compensatory formula to deal with asymmetries in the distribution of the value of such assets: it is highly unlikely that the share of the asset value attributable to a province on a population basis would equal the share calculated on a territorial basis. In our opinion, most formulas that have been or are likely to be devised for allocating

10 See David E.W. Laidler and William B.P. Robson, *Two Nations, One Money? Canada's Monetary System following a Quebec Secession*, The Canada Round 3 (Toronto: C.D. Howe Institute, 1991), pp. 11, 39–47.

11 Yvan Stringer makes the same point in his contribution to this volume.

fixed assets would face objections from one or more provinces during the early post-separation years.

One way out of this dilemma (and the ill-feeling it would be bound to generate) would be to set up a Canada Crown Asset Corporation to hold all land and fixed assets from the time of breakup until such time as they could be liquidated or a satisfactory compensation formula is devised. Any income earned on the assets would be funneled through the account and distributed to the provinces in proportion to their population shares.

When the time came to carry out the division, the value of the immovable assets at that date would be calculated according to the group valuation discussed above. Such a process should really take into account 11 geographic areas — ten provinces and the national capital (NC) — plus aboriginal land. The designation of an NC area — which would include federal fixed assets and land in Hull — would be necessary because of the unfair distribution of the property associated with the seat of government of the now defunct nation, since the liquidation value of these assets would drop sharply as a result of breakup.

Because of the size of outstanding aboriginal claims, it would seem most desirable to settle such claims before embarking on a general division. (As already mentioned, this land would not be included in the division among provinces.) The provinces and the aboriginal groups would take shares in the value of all immovable NC assets equal to their population shares. The total value of land and fixed assets situated within each province (excluding the NC) would then be calculated as a percentage of the sum of the ten provinces' assets (excluding the NC) and compared with its population share. Some provinces would have an asset surplus — that is, the value of the assets in their territory would exceed their share of the total population. Others would have an asset deficit and would have to be compensated accordingly.

The importance of this delay technique in the case of the division of immovable assets is highlighted by the complications that would likely arise as a result of some of the formulas that have

already been tabled. In the atmosphere of bitterness and confusion that is likely to prevail in the event of a breakup of the country, some provinces may exert considerable pressure to come to a quick agreement on a formula for the division of all assets and liabilities. For this reason, it would be prudent to reject as soon as possible some of the more seriously flawed formulas.

Among these flawed formulas is one that makes up for a surplus or deficit in the value of a province's share of immovable assets by adjusting its share of liabilities — a methodology underlying the Bélanger-Campeau Commission's approach. This technique would result in an asset-deficient province receiving an immediate benefit in the form of a reduction in its debt share. A province with a surplus of assets, on the other hand, although it might not be able to liquidate that surplus for years, would nonetheless be obliged to service its full share of the debt. A better approach would be to compensate an asset-deficient province with a claim to part of the value of assets in other provinces as well as in the NC area.

As an aside, it should be noted that the Bélanger-Campeau strategy is not justifiable on the basis of any "historical" matching of liabilities against immovable assets. From a historical accounting standpoint, since there is no capital budget in federal finances, all federal debt is considered to have been incurred to finance consumption (we will return to this point later). The objection might be raised that proper federal financial statements *should* include a capital budget. If they did, however, the debt that would logically be set against assets would be an amount equal only to the historical cost of federal nonmilitary structure and equipment net of depreciation.[12] This amount would be much smaller than that estimated by the Bélanger-Campeau Commission — perhaps around $14 billion, based on cumulative federal net fixed investment in the *National Income and Expenditure Accounts*. (Such an approach would obvi-

12 All other debt — both debt issued to finance current expenditures, and debt issued to finance capital expenditures that have since been depreciated — would be logically set against past consumption.

ously leave us no farther ahead on the question of compensation, since it makes no reference to liquidation value.)

Dividing Federal Liabilities

As noted earlier, when it comes to the liabilities side of the federal balance sheet, the Bélanger-Campeau Commission has implicitly made a distinction between debt incurred to finance the acquisition of assets and debt incurred to finance current expenditure. The *Public Accounts*, on which the decision to issue debt formally rests, would suggest that this distinction is meaningless, since all expenditure — whether for "capital" or otherwise — is treated as current. As already noted, we would argue in favor of a per-capita division of these liabilities.

Unlike Bélanger-Campeau, we would not accord the civil servants' superannuation fund special treatment. The Commission divided the unfunded liability of the superannuation accounts according to the province of residence of the civil servants involved. This approach treats the civil servants, instead of the recipients of government services provided by the civil servants, as the beneficiaries of the compensation for employment that this fund, in deferred form, represents.

Only in exceptional cases, however, is there any correlation between the place of residence of the civil servants and that of the beneficiaries of the services they deliver. The federal government and the provinces, other than Quebec and Ontario, share the cost of those units of the RCMP that function as a provincial police force. The pension fund liabilities associated with this could possibly be allocated to the benefiting provinces. According to the residence criterion, however, because Veterans Affairs is located in Prince Edward Island, that province would be responsible for the pensions of the retired employees of that department, even though there may not be a single veteran living there!

More formally, the peculiarity of the Bélanger-Campeau approach to this pension-fund liability is most apparent if one imagines

that the federal government, rather than acknowledging its growing future obligations to current civil servants by adding to an unfunded liability in its books, had made contributions to a private pension plan on behalf of its employees, funded by regular debt issues. In that case, the resulting marketed debt would be indistinguishable from debt issued to finance other expenditures, and the question of a special formula for division would not arise. It seems that special treatment of this item arises more as a result of the form the liability takes than of the purpose for which it was incurred. A more appropriate approach would be to treat this liability in exactly the same way as other consumption-related debt, preferably by dividing it on a per capita basis.

Final Comment

Having made these observations on the problems involved with liquidating the federal government, we are left echoing the words of Paul Boothe, Barbara Johnson, and Karrin Powys-Lybbe to the effect that discussions of these problems have largely tended to make their resolution seem easier than it would actually be. It is not difficult to point to reasonably straightforward and equitable methods for dealing with specific assets and liabilities, as we and other contributors to this volume have done. But any formula or methodology can be manipulated to favor the group presenting it, making it necessary to examine carefully all of the assumptions that are involved.

In any event, there are enough problems in valuation and enough conflicting bases for division to ensure that any but the most good-natured liquidation would rapidly encounter some very contentious obstacles. We sincerely hope that the question of liquidating the federal government never progresses beyond the current academic exercise.

Dividing the Debt:
Avoiding the Burden

John F. Chant

The division of the Canadian debt between Quebec and "the Rest of Canada" (ROC), if the breakup of Canada becomes a fact, would occur under most unfavorable conditions. The credit ratings of both Canada and Quebec would be lower than Canada's is now because of the reduced opportunity for diversification.[1] Moreover, Quebec would become responsible for both its current provincial debt and its share of the present federal debt. Thus, the cost of capital for the sum of the parts of what used to be Canada would be much higher than it was before the breakup, and international and domestic holders of the public debt would feel betrayed because they would be left with instruments lower rated than they were previously.

Against this background, debt division could not be an easy process, and though clearly an economic issue, it would be dominated by politics and emotion. To some Quebecers, the debt represents a burden carried forward from an unacceptable political regime. To other Canadians, Quebec would have to assume a "fair" (and large) share as compensation for benefits received from being

The author is indebted to David Brown, Lenore d'Anjou, Tom Kierans, John McCallum, and Barb Clark for their helpful comments.

1 See Paul Boothe and Richard Harris, "Alternative Divisions of Federal Assets and Liabilities," in Robin W. Boadway, Thomas J. Courchene, and Douglas D. Purvis, eds., *Economic Dimensions of Constitutional Change*, vol. 2 (Kingston: John Deutsch Institute for the Study of Economic Policy, forthcoming), pp. 453–473; and Paul Boothe and Richard Harris, "The Economics of Constitutional Change: Dividing the Federal Debt," Western Centre for Economic Research Series on Constitutional Change, research paper 1 (Edmonton, 1991).

part of Confederation. It seems inevitable that the division would occur with acrimony and recrimination.

In this atmosphere of antagonism, the overall costs of separation would rise needlessly. Use of the debt as a pawn in discussions of breakup could foreclose effective options for bargaining if separation cannot be avoided. Moreover, both parties might use the debt after breakup to distort the policy options in other areas. In these less than ideal circumstances, the combined costs to ROC and Quebec could leave a debt "burden" that substantially exceeded the value of the debt being divided.

This paper, therefore, explores ways of minimizing the total costs of dividing the debt. To do so, one must consider the problem in three phases:

- Pre-separation *posturing*: the staking out of the positions to take should the separation of Quebec become a fact. Since the separation would not be a fact at the time this posturing took place, the positions need not be binding.
- *Bargaining* upon breakup: the negotiations about dividing the debt that would occur if separation became accepted as a fact. The result of such negotiations would eventually become binding in the sense that it would constitute the agreement of separation between Quebec and ROC.
- Post-separation *enforcement*: the terms of separation, like any other agreement, could not be completely definitive. There would undoubtedly have to be continuing negotiation between the parties, with each trying to minimize its costs in terms of those dimensions that could not be specified precisely initially.

Falling prey to the dangers present in each of these phases could substantially increase the costs of dividing the debt.

The Process of Dividing the Debt

The problems to be avoided in dividing the debt can be illustrated by following the process from posturing through negotiation to

enforcement of the separation agreement. The limitations of this analysis should be recognized. The problems described here are unquestionably possible. Unfortunately, it is not clear that they represent the worst case. This paper is limited by scope of the imagination; reality may not be so constrained.

Posturing

Not surprisingly, pre-separation posturing has already begun. The stakes are large, and the positions each party takes at this stage will define one limit for post-breakup bargaining, if it becomes necessary.

The Bélanger-Campeau Commission has endorsed division of the debt on the basis of a complex formula that recognizes the government's acquisition of assets, future pension obligations, and the share of future tax liabilities that would be required to service the accumulated deficit. Various authors have made calculations using four different bases for dividing the debt.[2] Quebec's share ranges from $68 billion (21 percent of the debt) under a modified Bélanger-Campeau approach to $110 billion (30 percent) under the assumption that the debt should be divided according to historical benefits from Confederation. Intermediate shares of 25 percent and 23 percent are produced by using calculations based on population and income respectively.

Not surprisingly, the alternative endorsed by the Bélanger-Campeau Commission minimizes the burden for Quebec. Such a strategy makes clear sense. As in any other bargaining, Quebec has an interest in taking an extreme position so as to leave room for compromise once ROC states its position. Moreover, the position taken on debt division also affects bargaining for continued union; an extreme position on the former increases the perceived costs to Canada of breakup relative to those of continued federation.

2 See Paul Boothe, Barbara Johnston, and Karrin Powys-Lybbe in this volume; Boothe and Harris, "Alternative Divisions of Federal Assets and Liabilities"; and idem, "The Economics of Constitutional Change."

All the incentives for Quebec to take an extreme position are mirrored for ROC. Like Quebec, it must treat the posturing stage as a prelude to the first round of the post-breakup bargaining. It also has an incentive to use its position on debt division to impress on Quebecers the cost of separation.

The posturing stage may seem unnecessary. Both parties could wait until the completion of negotiations about the terms on which Quebec could remain in Canada. Yet these negotiations cannot be complete without spelling out the alternatives. Thus, statements about positions after separation are as much part of negotiations at this stage as are the terms of continuing affiliation.

Bargaining

If post-breakup bargaining for dividing the debt begins, each party would turn to the public pronouncements of positions it put forward as part of the posturing round. (They may not be the positions that the parties would have chosen had bargaining begun without a history.)

The sources of strength in the bargaining round would differ between ROC and Quebec. ROC knows that it would be stuck with the debt should agreement not be reached. Under international law, it could refuse to accept Quebec sovereignty and continue to demand tax payments from Quebec residents. In practice, though, Canada could hardly hold back a Quebec unwilling to stay. Quebec, on the other hand, could walk away from its share of the debt with less cost. It would face a clear tradeoff: the cost of assuming a share of the present federal government's debt versus the costs of a credit rating reduced for failing to do so while maintaining payments on its own debt.

This asymmetry, which seemingly favors Quebec, does not include all the forces ROC could bring to bear on the process. The debt is only one of many economic issues that would have to be resolved at the time of breakup. ROC could use threats on other issues, such as access to its markets for Quebec exports or participa-

tion in financial markets, as part of the bargaining, redressing the balance on the debt issue.

Making other policies pawns of the debt issue would clearly have costs to Quebec, but each of these measures would also harm Canada. This bargaining over dividing the debt could easily produce costs exceeding the value of the debt to be divided.

Enforcement

The problems of dividing the debt would not end once the division had been made. A schedule would have to be devised for the turnover of Quebec's share. Immediate assumption in one step would increase the existing provincial debt by at least 130 percent. To make the market impact of the new debt more gradual, Boothe and Harris suggest that Quebec assume responsibility for its share according to the maturity of Canada's existing debt.[3]

Delay in transfer would, however, prolong ROC's exposure to risk. Until the debt matured, Canada would bear responsibility for servicing it and would depend on transfers from Quebec for a share of the cost. Moreover, at the maturity, Canada would require substantial transfers from Quebec in order to retire its share. Thus, Canada would have to protect itself against Quebec's failure to meet its obligations.

Such failure cannot be ruled out. Issues surrounding the debt might lead a separate Quebec to feel Canada's actions had imposed costs on it much higher than those it expected. Post-separation policies of the Bank of Canada, over which Quebec had no say, might, for example, force the Canadian dollar to levels higher than anticipated at the time of breakup, reducing Quebec's returns from its exports. It could be tempted to use the debt transfer as a lever to pressure post-separation Canada with respect to these or other policies that worked out to its disadvantage.

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3 Boothe and Harris, "Alternative Divisions of Federal Assets and Liabilities"; and idem, "The Economics of Constitutional Change.

Unfortunately, the process would be unlikely to stop at this stage. As in the bargaining stage, Canada might resort to using other policies as pawns for negotiating the debt; for example, access to markets might be used to pressure Quebec to meet its debt-service commitments.

An Approach to Minimizing the Costs

The present approach of proposing formulas for dividing the federal debt induces each party to use whichever plausible formula best supports its position. But the formulas also encourage bargainers to establish extreme positions. Moreover, they shape public opinions as to the rightfulness of one cause or the other. Remember that although the division of the debt would have substantial economic consequences, the resolution of the issue has already passed from the economic into the political realm. This passage raises fears that all the pressures described will be active.

Can ROC and Quebec avoid this trap, which threatens to escalate the costs of dividing the debt? Indeed, there appear to be measures that could ease the burden of dividing the debt. They could be taken at both the posturing and the breakup stages.

ROC has the next move in the posturing stage. It should avoid the predictable step of presenting its preferred criterion for debt division, however credible. Instead, it should declare that it seeks Quebec's agreement to refer the issue to an independent arbiter when and if separation becomes a fact. The arbiter would be commissioned to review the two parties' competing positions and use them to determine the division of the debt.

This step would avert the problems in both the posturing and the bargaining stages. In the former, debt division would not be available for either side to use as a device to escalate the apparent costs of the other's preferred policy. In the latter, the use of an arbiter would similarly prevent other policies' being used as pawns in the bargaining over debt division.

The use of an arbiter would not solve the enforcement problem, but here Canada could protect itself. Boothe and Harris suggest that Quebec's posting securities would offer some surety in the bitter atmosphere that might follow separation.[4] Yet many kinds of securities would not offer complete protection. Outsiders might view intergovernmental obligations as different from marketable government securities. Partial default might not face sanctions as large as default on market issues would; as long as Quebec maintained its service of its other debt, it could conceivably stave off (or reduce) the usual market sanctions of lower credit ratings and higher interest rates on new issues.

Canada could, however, protect itself by specifying the types of securities that it would accept against Quebec's future obligations. It should require securities that:

- are senior to all existing Quebec provincial debt;
- are identical in other characteristics to marketable issues of outstanding Quebec debt; and
- have cleared all regulatory procedures necessary for them to be traded publicly in all markets in which Quebec debt currently trades.

Having such securities lodged with it would protect Canada in two ways. First, it could market them to cover any default in Quebec's payments. Second, any default by Quebec would represent a default on issues that are held by other investors and, like any other default on marketable debt, would lower Quebec's credit rating and raise interest rates on its subsequent issues.

Conclusion

Although dividing Canada's public debt would have economic consequences, it would likely be decided by political bargaining

4 Boothe and Harris, "Alternative Divisions of Federal Assets."

with little weight given to economic criteria. Such political bargaining could easily magnify the costs of debt division through spillovers to other policies. This potential for needless loss exists at all three stages of separation: posturing, bargaining, and enforcement.

The costs of dividing the debt could be minimized by both parties' agreeing on a two-stage procedure:

- the division of the debt between ROC and Quebec by a mutually acceptable arbiter whose decision would be binding on both parties; and
- Quebec's assumption of its share phased according to the maturity of existing government debt, with this assumption guaranteed by lodging senior marketable issues of Quebec debt with the federal government.

Such a policy has a chance of avoiding making a burden of debt division.

The Contributors

Paul Boothe is an Associate Professor of Economics at the University of Alberta and a Visiting Scholar (1991–92) at the School of Policy Studies, Queen's University.

John F. Chant is Professor and Chair of the Department of Economics at Simon Fraser University. His research interests are in the area of monetary economics, and he is the co-author of *The Economics of the Canadian Financial System: Theory, Policy and Institutions.*

Daniel Desjardins is a lawyer and partner of the law firm of Godin, Raymond, Harris, Thomas, and President of the Société québécoise de droit international. His areas of practice are banking law, commercial law, and real estate.

Claude Gendron is a lawyer and partner of the law firm of Godin, Raymond, Harris, Thomas, practicing in the areas of corporate and commercial law, international commercial transactions, and real estate. He has taught at McGill University, and is President of the Executive Committee of the Société de droit international économique.

Irene K. Ip is a Senior Policy Analyst at the C.D. Howe Institute and Advisor to the Howe Institute Policy Analysis Committee. Before joining the Institute, she was a Vice-President and Chief Forecaster at Wood Gundy Inc. Her recent publications include *Big Spenders: A Survey of Provincial Government Finances in Canada* (1991); and *Strong Medicine: Budgeting for Recession and Recovery* (1991).

Barbara Johnston holds an undergraduate degree in history and economics from the University of Alberta. She is currently studying law at Queen's University.

Karrin Powys-Lybbe holds an undergraduate degree in economics from the University of Alberta. She is currently studying law at the University of Toronto.

William B.P. Robson is a Senior Policy Analyst at the C.D. Howe Institute and Canadian Research Director for the Canadian-American Committee. He has written extensively on Canadian monetary policy and is the co-author (with David E.W. Laidler) of *Two Nations, One Money? Canada's Monetary System following a Quebec Secession*, study no. 3 in "The Canada Round" series (1991).

Yvan Stringer is Professor of Economics, Institut d'économie appliquée, École des Hautes Études Commerciales, in Montreal. He has written extensively on economic policy, and is the co-author (with J. Raynauld) of *Problèmes et politiques économiques* (Presses de l'Université du Québec, 1988, 1990).

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Paul Boothe, Barbara Johnston, and *Karrin Powys-Lybbe* examine four approaches to sharing the federal debt: the formula suggested by Quebec's Bélanger-Campeau Commission, a share based on gross domestic product, a share based on population, and a formula based on the "historical benefits" that each province has received by being part of Canada. Depending on which formula is used, they calculate that Quebec's share of the debt could be as low as one-sixth or as high as one-third.

Shorter commentaries are provided by *Yvan Stringer, Irene K. Ip* and *William B.P. Robson,* and *John F. Chant*. As a package, these contributions make substantial progress toward a solution to the problem of how one might "reasonably" share federal assets and debt from a purely economic standpoint.

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